California Regional Water Quality Control Board
Santa Ana Region

May 31, 2002
Staff Report

ITEM: 14

SUBJECT: **Public Workshop, Renewal of Waste Discharge Requirements for the Riverside County Flood Control and Water Conservation District, the County of Riverside, and the Incorporated cities of Riverside County within the Santa Ana Region, Storm Water Runoff Management Program, Order No. R8-2002-0011 (NPDES No. CAS 618033)**

BACKGROUND

Currently urban runoff from the cities and Riverside County within the Santa Ana Regional Board's jurisdiction is regulated under Order No. 96-30, which expired on March 1, 2001, and was administratively extended. Tentative order No. R8-2002-0011 proposes to renew these requirements.

On March 22, 2002, a copy of the draft Order, Monitoring and Reporting Program, and the Fact Sheet were mailed and/or emailed to interested parties. Subsequently, these and other related documents (Report of Waste Discharge, Drainage Area Management Plan, etc.) were posted on the Regional Board's website. This public workshop is to review and solicit comments on the proposed draft Order.

The draft Order, Monitoring and Reporting Program and the Fact Sheet are attached to this Staff Report.

SCHEDULE:

Comments received prior to and during this public workshop will be considered in the preparation of the next draft Order. Based on the comments received at this workshop, additional workshops and/or public hearing will be scheduled and all interested parties will be notified.

California Regional Water Quality Control Board

Santa Ana Region

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Riverside, CA 92501- 3348

FACT SHEET

March 22, 2002 Draft
May 31, 2002 Board Meeting

ITEM: 14

SUBJECT: **Waste Discharge Requirements for the Riverside County Flood Control and Water Conservation District, the County of Riverside, and the Incorporated cities of Riverside County within the Santa Ana Region, Storm Water Runoff Management Program, Order No. R8-2002-0011 (NPDES No. CAS 618033)**

I. INTRODUCTION

A. PROJECT

The attached pages contain information concerning an application for renewal of waste discharge requirements and a National Pollutant Discharge Elimination System (NPDES) permit, Order No. R8-2002-0011, NPDES No. CAS 618033, which prescribes waste discharge requirements for urban storm water runoff from the cities and the unincorporated areas in Riverside County within the jurisdiction of the Santa Ana Regional Board. Specifically, Order No. R8-2002-0011 regulates discharges of urban storm water from the Riverside County areas that drain into the San Jacinto/Santa Ana River watershed, which discharges into the lower Santa Ana watershed through Prado Dam. The lower Santa Ana watershed is tributary to the Pacific Ocean through Orange County via the Santa Ana River.

Urban storm water runoff consists of dry and wet weather flows through storm water conveyance systems from urbanized areas. As water flows over streets, parking lots, construction sites, industrial, commercial, residential, and municipal areas, it can intercept pollutants from these areas and transport them to waters of the United States (U.S.). If appropriate pollution control measures are not implemented, urban runoff may contain pathogens (bacteria, protozoa, viruses), sediment, trash, fertilizers (nutrients, mostly nitrogen and phosphorus compounds), oxygen-demanding substances (decaying matter), pesticides (DDT, Chlordane, Diazinon, Chlorpyrifos), heavy metals (cadmium, chromium, copper, lead, zinc), and petroleum products (oil & grease, PAHs, petroleum hydrocarbons). If not properly managed and controlled, urbanization can change the stream hydrology and increase pollutant loading to receiving waters. As a watershed undergoes urbanization, pervious surface area decreases, runoff volume and velocity increases, riparian habitats and wetland habitats decrease, the frequency and severity of flooding increase, and pollutant loading increases. Most of these impacts occur due to human activities that occur during and/or after urbanization. The pollutants and hydrologic changes can cause declines in aquatic resources, cause toxicity to marine organisms, and impact human health and the environment.

However, properly planned high-density development, with sufficient open space, can reduce urban sprawl and problems associated with sprawl. Urban in-fill developments can be an element of smart growth, creating the opportunity to maintain relatively natural open space elsewhere in the area.

On August 30, 2000, the Riverside County Flood Control and Water Conservation District (RCFC&WCD), the County of Riverside, the Cities of Beaumont, Calimesa, Canyon Lake, Corona, Hemet, Lake Elsinore, Moreno Valley, Norco, Perris, Riverside, and San Jacinto (hereinafter collectively referred to as the permittees or dischargers), submitted NPDES Application No. CAS 618033 for an area-wide stormwater discharge NPDES permit. The permit application was submitted in accordance with the previous NPDES permit (Order No. 96-30, NPDES No. CA 618033) which expired on March 1, 2001. Additionally, the permit application follows guidance provided by staff of the State Water Resources Control Board (State Board) and the Regional Water Quality Control Boards (Regional Boards). In 2001, to more effectively carry out the requirements of this order, the permittees have agreed that the RCFC & WCD will continue as principal permittee and the County and the incorporated cities will continue as co-permittees.

On February 16, 1999, the City of Murrietta annexed a portion of the unincorporated area of Riverside County within the Santa Ana Watershed. The City of Murrieta has expressed its intent to be a permittee in this area-wide NPDES permit.

B. PROJECT AREA

Within the Santa Ana Region, the Riverside County Flood Control and Water Conservation District (RCFC&WCD) serves a population of approximately 1,687,800, occupying an area of approximately 1,360 square miles.

Approximately one-quarter of Riverside County drains into surface water bodies within the jurisdiction of the Santa Ana Regional Board. The permitted area is delineated by the San Bernardino-Riverside County boundary line on the north and northwest, the Orange Riverside County boundary line on the west, the Santa Ana-San Diego Regional Board boundary line on the south, and the Santa Ana Colorado River Basin Regional Board boundary line on the east (see Attachment 1 of the Order).

C. CLEAN WATER ACT REQUIREMENTS

The 1972 Clean Water Act (CWA) established the National Pollutant Discharge Elimination System (NPDES) permit program to regulate the discharge of pollutants from point sources to waters of the United States (U.S.). Since then, considerable strides have been made in reducing conventional forms of pollution, such as from sewage treatment plants and industrial facilities, through the implementation of the NPDES program and other federal, state and local programs. The adverse effects of some of the persistent toxic pollutants (DDT, PCB, TBT) were addressed through manufacturing and use restrictions and through cleanup of contaminated sites. On the other hand, pollution from land runoff (including atmospheric deposition, urban, suburban and agricultural) was largely unabated until the 1987 CWA amendments. As a result, diffuse sources, including urban storm water runoff, now contribute a larger portion of many kinds of pollutants than the more thoroughly regulated sewage treatment plants and industrial facilities. The National Urban Runoff

Program (NURP) final report to the Congress (U.S. EPA, 1983) concluded that the goals of the CWA could not be achieved without addressing urban runoff discharges. The 1987 CWA amendments established a framework for regulating urban storm water runoff. Pursuant to these amendments, the Santa Ana Regional Water Quality Control Board (Regional Board) began regulating municipal storm water runoff in 1990.

II. REGULATORY BACKGROUND AND CLEAN WATER REQUIREMENTS

The United States Environmental Protection Agency (US EPA) recognizes urban runoff as the number one source of estuarine pollution in coastal communities[1]. Recent studies [2] conducted in the Southern California area have established a definite link between storm water runoff from urban areas as significant sources of pollutants in surface waters in Southern California. A number of beaches within the Santa Ana Region were closed during the summer of 1999 and 2000 due to microbial contamination. The Santa Ana River is impacted by urban runoff as it flows through the San Bernardino County and Riverside County areas prior to flowing through Orange County and into the Pacific Ocean. If not properly controlled, urban runoff could be a significant source of pollutants in the waters of the U. S. Table 1 includes a list of pollutants, their sources, and some of the adverse environmental consequences mostly resulting from urbanization.

The Clean Water Act (CWA) prohibits the discharge of any pollutant to navigable waters from a point source unless an NPDES permit authorizes the discharge. Efforts to improve water quality under the NPDES program traditionally and primarily focused on reducing pollutants in discharges of industrial process wastewater and municipal sewage. The 1987 amendments to the CWA required municipal separate storm sewer systems (MS4s) and industrial facilities, including construction sites, to obtain NPDES permits for storm water runoff from their facilities. On November 16, 1990, the United States Environmental Protection Agency (EPA) promulgated the final Phase I storm water regulations. The storm water regulations are contained in 40 CFR Parts 122, 123 and 124.

On July 13, 1990, the Regional Board issued Order No. 90-104 to the permittees (first term permit). In 1996, the Board adopted Order No. 96-30 (second term permit).

On February 16, 1999, a portion of the unincorporated area of Riverside County within the Santa Ana Watershed was annexed by the City of Murrietta. The City of Murrieta had expressed its intent to be a co-permittee in this area-wide NPDES permit.

On August 30, 2000, the Riverside County Flood Control and Water Conservation District (RCFC&WCD), the County of Riverside, the Cities of Beaumont, Calimesa, Canyon Lake, Corona, Hemet, Lake Elsinore, Moreno Valley, Norco, Perris, Riverside, and San Jacinto (hereinafter collectively referred to as the permittees or dischargers), submitted NPDES Application No. CAS 618033 for an area-wide stormwater discharge

[1] US EPA, 1999, 40CFR Parts 9, 122, 123, 124, National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule, 64FR 68727.
[2] Bay, S., Jones, B. H. and Schiff, K, 1999, Study of the Impact of Stormwater Discharge on Santa Monica Bay. Sea Grant Program, University of Southern California; and Haile, R.W., et. al., 1996, An Epidemiological Study of Possible Adverse Health Effects of Swimming in Santa Monica Bay. Southern California Coastal Water Research Project (1992), Surface Runoff to the Southern California Bight.

NPDES permit. The permit application was submitted in accordance with the previous NPDES permit (Order No. 96-30, NPDES No. CA 618033) which expired on March 1, 2001. Additionally, the permit application follows guidance provided by staff of the State Water Resources Control Board (State Board) and the Regional Water Quality Control Boards (Regional Boards). Subsequently, the City of Murrieta expressed its intent to be a permittee in this area-wide NPDES permit for the portion of the unincorporated area of Riverside County within the Santa Ana Watershed that it annexed in 1999.

In 2001, to more effectively carry out the requirements of this order, the permittees have agreed that the RCFC & WCD will continue as principal permittee and the County and the incorporated cities will continue as co-permittees.

On January 19, 2001, this Regional Board adopted Order No. 01-34, NPDES No. CAG 618005 Watershed-wide Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with New Developments in the San Jacinto Watershed. On March 2, 2001, Order No. 96-30, NPDES No. CAS618033, was administratively extended in accordance with Title 23, Division 3, Chapter 9, §2235.4 of the California Code of Regulations.

Table 1[3].

Pollutants/Impacts of Urbanization On Waters of the U.S.

Pollutants	Sources	Effects and Trends
Toxins (e.g., biocides, PCBs, trace metals, heavy metals)	Industrial and municipal wastewaters; runoff from farms, forests, urban areas, and landfills; erosion of contaminated soils and sediments; vessels; atmospheric deposition	Poison and cause disease and reproductive failure; fat-soluble toxins may bioconcentrate, particularly in birds and mammals, and pose human health risks. Inputs into U.S. waters have declined, but remaining inputs and contaminated sediments in urban and industrial areas pose threats to living resources.
Pesticides (e.g., DDT, diazinon, chlorpyrifos)	Urban runoff, agricultural runoff, commercial, industrial, residential and farm use	The use of legacy pesticides (DDT, chlordane, dieldrin,…) has been banned or restricted; still persists in the environment; some of the other pesticide uses are curtailed or restricted.
Biostimulants (organic wastes, plant nutrients)	Sewage and industrial wastes; runoff from farms and urban areas; nitrogen from combustion of fossil fuels	Organic wastes overload bottom habitats and deplete oxygen; nutrient inputs stimulate algal blooms (some harmful), which reduce water clarity, and alter food chains supporting fisheries. While organic waste loading has decreased, nutrient loading has increased (NRC, 1993a, 2000a).
Petroleum products (oil, grease, petroleum hydrocarbons, PAHs)	Urban runoff and atmospheric deposition from land activities; accidental spills; oil & gas production activities; natural seepage; and PAHs from internal combustion engines	Petroleum hydrocarbons can affect bottom organisms and larvae; spills affect birds, mammals and aquatic life. While oil pollution from accidental spills, and production activities has decreased, diffuse inputs from land-based activities have not (NRC, 1985).
Radioactive isotopes	Atmospheric fallout, industrial and military activities	Bioaccumulation may pose human health risks where contamination is heavy.

[3] Adapted from "Marine Pollution in the United States" prepared for the Pew Oceans Commission, 2001.

Pollutants	Sources	Effects and Trends
Sediments	Erosion from farming, construction activities, forestry, mining, development; river diversions; coastal dredging and mining	Reduce water clarity and change bottom habitats; carry toxins and nutrients; clog fish gills and interfere with respiration in aquatic fauna. Sediment delivery by many rivers has decreased, but sedimentation poses problems in some areas.
Plastics and other debris	Boats, fishing nets, containers, trash, urban runoff	Entangles aquatic life or is ingested; degrades, lake shores and wetland habitats. Floatables (from trash) are an aesthetic nuisance and can be a substrate for algae and insect vectors.
Thermal	Cooling water from power plants and industry, urban run off from impervious surfaces	Kills some temperature-sensitive species; and displaces others.
Pathogens (bacteria, protozoa, viruses)	Sewage, urban runoff, livestock, wildlife, and discharges from boats.	Pose health risks to swimmers and consumers of aquatic life. Sanitation has improved, but standards have been raised (NRC 1999a).
Alien species	Fishery stocking, aquarists	Displace native species, introduce new diseases; growing worldwide problem (NRC 1996).

The area-wide NPDES permit for Riverside County areas within the Santa Ana Regional Board's jurisdiction is being considered for renewal in accordance with Section 402 (p) of the CWA and all requirements applicable to an NPDES permit issued under the issuing authority's discretionary authority. The requirements included in this order are consistent with the CWA, the federal regulations governing urban storm water discharges, the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan), the California Water Code, and the State Board's Plans and Policies.

The Basin Plan is the basis for the Regional Board's regulatory programs. The Plan was developed and is periodically reviewed and updated in accordance with relevant federal and state law and regulation, including the Clean Water Act and the California Water Code. As required, the Basin Plan designates the beneficial uses of the waters of the Region and specifies water quality objectives intended to protect those uses. (Beneficial uses and water quality objectives, together with an antidegradation policy, comprise federal "water quality standards"). The Basin Plan also specifies an implementation plan, which includes certain discharge prohibitions. In general, the Basin Plan makes no distinctions between wet and dry weather conditions in designating beneficial uses and setting water quality objectives, i.e., the beneficial uses, and correspondingly, the water quality objectives are assumed to apply year-round. (Note: In some cases, beneficial uses for certain surface waters are designated as "I", or intermittent, in recognition of the fact that surface flows (and beneficial uses) may be present only during wet weather.) Most beneficial uses and water quality objectives were established in the 1971, 1975 and 1983 Basin Plans.

Water Code Section 13241 requires that certain factors be considered, at a minimum, when water quality objectives are established. These include economics and the need for developing housing in the Region. (The latter factor was added to the Water Code in 1987). During this permit development process, the permittees raised an issue regarding compliance with Section 13241 of the California Water Code with respect to water quality objectives for wet weather conditions, specifically the cost of achieving compliance during wet weather conditions and the need for developing housing within the Region and its impact on urban storm water runoff. During the next review of the Basin Plan, staff will

recommend that this matter be incorporated on the triennial review list. In the meantime, the provisions of this order will result in reasonable further progress towards the attainment of the existing water quality objectives, in accordance with the discretion in the permitting authority recognized by the United States Court of Appeals for the Ninth Circuit in Defenders of Wildlife v Browner, 191 F.3d 1159, 1164 (9th Cir. 1999).

III. EXCLUSIONS TO THE PERMITTED AREA

Areas of the County not addressed or which are excluded by the storm water regulations and areas not under the jurisdiction of the permittees are excluded from the area requested for coverage under this permit application. These include the following areas and activities:

- Federal lands and state properties, including, but not limited to, military bases, national forests, hospitals, colleges and universities, and highways;
- Native American tribal lands;
- Open space and rural (non-urbanized) areas;
- Agricultural lands; and
- Utilities and special districts.

Federal and state lands in Riverside County, within the jurisdiction of the Santa Ana Regional Board, for which coverage under a municipal stormwater NPDES permit is excluded, are shown in Appendix I (Western Riverside County NPDES Permit Area).

IV. BENEFICIAL USES

Stormwater flows which are discharged to municipal storm drain systems in Riverside County are tributary to various water bodies (inland surface streams, lakes and reservoirs) of the state. The beneficial uses of these water bodies include municipal and domestic supply, agricultural supply, industrial service and process supply, groundwater recharge, water contact recreation, non-contact water recreation, and sportfishing, warm freshwater habitat, cold freshwater habitat, preservation of biological habitats of special significance, wildlife habitat and preservation of rare, threatened or endangered species. The ultimate goal of this storm water management program is to protect the beneficial uses and quality of the receiving waters.

To protect the beneficial uses of waters of the State, the pollutants from all sources need to be controlled. Recognizing this, and the fact that stormwater discharges contain pollutants, an area -wide stormwater permit is the most effective way to develop and implement a comprehensive stormwater management program in a timely manner. This area-wide stormwater permit contains requirements with time schedules that will allow the Permittees to continue to address water quality problems caused by urban stormwater runoff through

their management programs to reduce pollutants in storm water discharges to the maximum extent practicable (MEP)[4].

V. WATERSHED MANAGEMENT IN THE UPPER SANTA ANA RIVER BASIN

A. Management Approach

To regulate and control stormwater discharges from the Riverside County area to the municipal storm drain systems, an area-wide approach is essential and a holistic approach is needed to efficiently manage the water resources of the Region. The entire storm drain system is not controlled by a single entity; the RCFC&WCD, the County, several Cities, the State Department of Transportation (Caltrans), and the U.S. Army Corps of Engineers, in addition to other smaller entities, manage the systems. In addition to the Cities, the County and the RCFC&WCD, there are a number of other significant contributors of urban storm water runoff to these storm drain systems. These include: large institutions such as the State university system, schools, hospitals, etc.; federal facilities such as military sites, etc.; State agencies, such as Caltrans; water and wastewater management agencies such as Eastern and Western Municipal Water District; the National Forest Service and State parks. The State Board has issued a separate NPDES permit to Caltrans. In addition, Caltrans, and the other contributors identified, are not under the jurisdiction of the Permittees. The management and control of the entire flood control system cannot be effectively carried out without the cooperation and efforts of all these entities. Also, it would not be meaningful to issue a separate storm water permit to each of the entities within the permitted area whose land/facilities drain into the storm drain systems operated by the Permittees. The Regional Board has concluded that the best management option for the Riverside County area is to issue an area-wide storm water permit to the RCFC&WCD, Riverside County, and the cities in Riverside County within the Santa Ana River Watershed.

Although, the storm water flows from areas under this order drain into Orange County, urban runoff from Orange County areas are regulated under NPDES No. CAS 618030. Some areas within Riverside County are within the Colorado River Basin and San Diego Regional Boards' jurisdictions. Permit requirements for storm water runoff from the drainage areas of Riverside County within the jurisdiction of the San Diego and Colorado River Basin Regional Boards are addressed by those Regional Boards.

In developing storm water management and monitoring programs, consultation/coordination with other drainage management entities and other Regional Boards is essential. Common programs, reports, implementation schedules and efforts are desirable and will be utilized to the maximum extent practicable.

Cooperation and coordination among all the stakeholders are essential for efficient and economical management of the watershed. It is also critical to manage non-point sources at a level consistent with the management of urban storm water runoff in a watershed in order to successfully prevent or remedy water quality impairment.

[4] Maximum Extent Practicable (MEP) means the maximum extent feasible, taking into account equitable considerations of synergistic, additive, and competing factors, including but not limited to, gravity of the problem, fiscal feasibility, public health risks, societal concerns, and social benefits.

Regional Board staff will facilitate coordination of monitoring and management programs among the various stakeholders.

An integrated watershed management approach is consistent with the Strategic Plan and Initiatives for the State and Regional Boards. A watershed wide approach is also necessary for implementation of the load and waste load allocations to be developed under the TMDL process. The MS4 Permittees and all the affected entities are encouraged to participate in regional or watershed solutions, instead of project-specific and fragmented solutions.

The pollutants in urban runoff originate from a multitude of sources and effective control of these pollutants requires a cooperative effort of all the stakeholders and many regulatory agencies. Every stage of urbanization should be considered in developing appropriate urban runoff pollution control methodologies. The program's success depends upon consideration of pollution control techniques during planning, construction and post-construction operations. At each stage, appropriate pollution prevention measures, source control measures, and, if necessary, treatment techniques should be considered.

B. SUB-WATERSHEDS AND MAJOR CHALLENGES

The Santa Ana River Watershed is the major watershed within this Region. This watershed is divided into three sub-watersheds: the Lower Santa Ana, Upper Santa Ana, and San Jacinto.

1. The lower Santa Ana River sub-watershed (downstream from Prado Basin) includes the north half of Orange County. The Upper Santa Ana River sub-watershed includes the southwestern corner of San Bernardino County and the northwestern corner of Riverside County. The San Jacinto sub-watershed includes the northwest corner of Riverside County south of the Upper Santa Ana River sub-watershed within this Region.

   Generally, the San Bernardino County drainage areas drain to the Riverside County drainage areas, and Riverside County drainage areas discharge to Orange County through Prado Dam on the Santa Ana River. Most of the flow in the Santa Ana River is recharged into the ground water in Orange County but during wet weather, some of the flow may be discharged to the Pacific Ocean.

   Water from rainfall and snow melt runoff, and surfacing ground water from various land use areas either discharge directly to the Santa Ana River or to watercourses tributary to the Santa Ana River. Other major rivers in the area include the San Jacinto River and Temescal Creek. The San Jacinto Mountain areas drain into the San Jacinto River, which discharges into Canyon Lake and thence to Lake Elsinore. Any overflow from Lake Elsinore is tributary to Temescal Creek, which flows into the Santa Ana River at the Prado Flood Control Basin. Overflow from Lake Elsinore occurs infrequently, only once every 12 to 15 years.

2. Upper Santa Ana River Sub-watershed:

a. Reach 3 of the Santa Ana River (Prado Dam to Mission Boulevard in Riverside): The pollutants of concern for Reach 3 are nutrients, pathogens, salinity, total dissolved solids and chlorides. Reach 3 of the River has been posted by Riverside County indicating that it is not suitable for body contact recreation due to microbial contamination. On March 23, 2000, the Executive Officer issued a request under Section 13267 of the CWC to the County and the cities that discharge urban runoff into this segment of the River to start an investigation of the microbial contamination of the River. The other problems associated with this segment of the River are addressed through the Regional Board's dairy program and TDS/nitrogen control programs.

b. Reach 4 of the Santa Ana River: Reach 4 of the Santa Ana River is the portion of the River from Mission Boulevard bridge in Riverside to the San Jacinto fault (Bunker Hill Dike) in San Bernardino. Reach 4 is also listed in the Clean Water Act Section 303 (d) as an impaired water body. Most of Reach 4 of the River is under the San Bernardino County area. The pollutants of concern for Reach 4 are pathogens.

c. San Jacinto Sub-watershed: Canyon Lake and Lake Elsinore are in this watershed and are listed on the 303(d) list for nutrients/pathogens (Canyon Lake) and nutrients, sediment, and unknown toxicity (Lake Elsinore). TMDLs are being developed for these impaired waterbodies. In the interim, the Regional Board adopted a separate watershed-wide construction activity storm water permit to regulate construction activities in this area. This permit may be reopened to include TMDL requirements.

C. *CWA SECTION 303(D) LIST AND TMDLS:*

Pursuant to Section 303(b) of the CWA, the 1998 water quality assessment conducted by the Regional Board listed a number of water bodies within the Region under Section 303(d) of the CWA as impaired water bodies. These are water bodies where the designated beneficial uses are not met and the water quality objectives are being violated. The impaired water bodies in Riverside County within the Santa Ana Regional Board's jurisdiction are listed in Table 2.

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Table 2

Clean Water Act Section 303(d) Listed Waterbodies, 1998 List

WATER BODY	*HYDRO UNIT*	*POLLUTANT/ STRESSOR*	*SOURCE*	*PRIORITY*	*SIZE AFFECTED*
Canyon Lake	802.120	Nutrients	Nonpoint Source	Medium	600 Acres
		Pathogens	Nonpoint Source	Medium	600 Acres
Lake Elsinore	802.310	Nutrients	Unknown Nonpoint Source	Medium	3300 Acres
		Org. enrichment /low D.O.	Unknown Nonpoint Source	Medium	3300 Acres
		Sediment / Siltation	Urban Runoff and Storm Drains	Medium	3300 Acres
Lake Fulmor	802.210	Pathogens	Unknown Nonpoint Source	Low	9 Acres
Santa Ana River, Reach 3	801.200	Nutrients	Dairies	Medium	3 Miles
		Pathogens	Dairies	Medium	3 Miles
		Salinity/TDS/Chlorides	Dairies	Medium	3 Miles
Santa Ana River, Reach 4	801.120	Pathogens	Nonpoint Source	Low	12 Miles

Federal regulations require that a total maximum daily load (TMDL) be established for each 303(d) listed waterbody for each of the pollutants causing impairment. The TMDL is the total amount of the problem pollutant that can be discharged while water quality standards in the receiving water are attained, i.e., water quality objectives are met and the beneficial uses are protected. It is the sum of the individual wasteload allocations (WLA) for point source inputs, load allocations (LA) for non-point source inputs and natural background, with a margin of safety. The TMDLs are the basis for limitations established in waste discharge requirements. TMDLs are being developed for all pollutants identified in Table 2. This permit may be reopened to include TMDL implementation, if other implementation methodologies are not effective.

VI. FIRST AND SECOND TERM PERMITS: STORM WATER POLLUTION CONTROL PROGRAMS AND POLICIES

Prior to EPA's promulgation of the final storm water regulations, the counties of Orange, Riverside and San Bernardino requested an area-wide NPDES permits for storm water runoff. On July 13, 1990, the Regional Board issued Order No. 90-104 to the permittees (first term permit). In 1996, the Board adopted Order No. 96-30 (second term permit). First and second term permits included the following requirements:

1. Prohibited non-storm water discharges to the MS4s with certain exceptions.
2. Required the municipalities to develop and implement a drainage area management plan (DAMP) to reduce pollutants in urban storm water runoff to the maximum extent practicable (MEP).
3. Required the discharges from the MS4s to meet water quality standards in receiving waters.
4. Required the municipalities to identify and eliminate illicit connections and illegal discharges to the MS4s.
5. Required the municipalities to establish legal authority to enforce storm water regulations.
6. Required monitoring of dry weather flows, storm flows, and receiving water quality, and program assessment.

During the first term permit, the permittees developed a Santa Ana Region Drainage Area Management Plan (SAR-DAMP) which was approved by the Executive Officer of the Regional Board on January 18, 1994. The SAR-DAMP included five best management practices (BMPs) groups: environmental education activities, solid waste activities, road drainage system operations and maintenance, regulatory and enforcement activities, and structural controls. The SAR-DAMP will be revised to include program components developed during the term of the 1996 Permit and to address requirements of this order. The Permittees also indicated that the monitoring program will be revised and incorporated into the revised SAR-DAMP.

The Riverside County Flood Control District, the Principal Permittee, performs water quality monitoring activities in support of three separate area-wide NPDES Municipal Stormwater Permits (Santa Ana, San Diego and Colorado River basins) under their own Consolidated Monitoring Program. Water samples and/or sediment samples have been collected at a total of 74 locations over the last nine years. These 74 locations are comprised of 45 storm

drain outfalls, 12 receiving water, 15 sediment, and 2 special interest sampling locations. The August 30, 2000, Santa Ana Report of Waste Discharge (ROWD) indicated that in order to assess long-term trends and BMP effectiveness they would need more data points, with at least 5 samples (of similar types) obtained for many years. The ROWD indicated that the monitoring program would have to be revised. In the future, these monitoring stations and monitoring will be used to identify problem areas and to re-evaluate the monitoring program and the effectiveness of the BMPs. The future direction of some of these program elements will depend upon the results of the ongoing studies and a holistic approach to watershed management.

Other elements of the storm water management program included identification and elimination of illegal discharges, illicit connections, and establishment of adequate legal authority to control pollutants in storm water discharges. Most of the permittees have completed a survey of their storm drain systems to identify illegal/illicit connections and have adopted appropriate ordinances to establish legal authority. Some of the more specific achievements during the first and second term permits are as follows:

1. During the term of the 1996 Permit, the principal permittee and the co-permittees have operated under an Implementation Agreement that sets forth the responsibilities of the permittees as defined in the 1996 Permit. The permittees have adopted local ordinances regarding the management of stormwater and urban runoff. The ordinances provide the permittees with the legal authority to implement the requirements of the 1996 Permit and the key regulatory requirements contained in 40 CFR Section 122.26(d)(2)(I)(A-F).
2. The permittees have participated in the District's Combined Monitoring Program.
3. The permittees administered area-wide programs including: hazardous materials emergency response, household hazardous waste collection, industrial/commercial compliance assistance program and public education and outreach. Some of these programs were coordinated with Caltrans and local agencies.
4. A Municipal Facilities Strategy was established, a New Development Guideline was developed, pet waste brochure, BMP brochure for horse owners, BMP brochure for pool discharges and a general outreach brochure for residents that hire contractors were developed.
5. A Technical Advisory Committee for overall program development and implementation was established.
6. Program Review: A number of existing programs were reviewed to determine their effectiveness in combating urban pollution and to recommend alternatives and or improvements, including public agency activities and facilities, illegal discharges and illicit connections to the MS4 systems, and existing monitoring programs.
7. Public Education: A number of steps were taken to educate the public, businesses, industries, and commercial establishments regarding their role in urban runoff pollution controls. The industrial dischargers were notified of the storm water regulatory requirements. For a number of unregulated activities, BMP guidances were developed and a toll free hotline was established for reporting any suspected water quality problems.
8. Public Agency Training: Training was provided to public agency employees to implement New Development Guidelines and Public Works BMPs.
9. Related Activities: Modified flood control facilities by channel stabilization and creation of sediment basins; eliminated or permitted and documented illicit connections to the MS4s.

An accurate and quantifiable measurement of the impact of the above stated storm water management programs is difficult, due to a variety of reasons, such as the variability in chemical water quality data, the incremental nature of BMP implementation, lack of baseline monitoring data, and the existence of some of the programs and policies prior to initiation of formal storm water management programs. There are generally two accepted methodologies for assessing water quality improvements: (1) conventional monitoring such as chemical-specific water quality monitoring; and (2) non-conventional monitoring, such as monitoring of the amount of household hazardous waste collected and disposed off at appropriate disposal sites, the amount of used oil collected, and the amount of debris removed by the debris boom, etc.

The water quality monitoring data could not be used to indicate any discernible trends or significant changes. It is expected that continuation of these programs and policies will reduce or control pollutants in storm water runoff.

During the second term permit, there was an increased focus on watershed management initiatives and coordination among the municipal permittees in Orange, Riverside and San Bernardino Counties. These efforts resulted in a number of regional monitoring programs and other coordinated program and policy developments.

It is anticipated that with continued implementation of the revised DAMP and other requirements specified in this order, the goals and objectives of the storm water regulations will be met, including protection of the beneficial uses of all receiving waters.

VII. FUTURE DIRECTION/2000 ROWD

The NPDES permit renewal application included an updated ROWD (2000 ROWD) that included an overview of the programs and policies the permittees are proposing to implement during the third term permit. One of the proposed activities is to revise the 1993 SAR-DAMP. The 2000 ROWD specified that the revised SAR-DAMP will be the principal guidance document for urban storm water management programs in Riverside County. The suggested outline for the revised SAR-DAMP include the following major components:

1. Continues a framework for the program management activities and DAMP update.
2. Continues to provide the legal authority to control discharges to the MS4s.
3. Includes a description of land use and population characteristics.
4. Improves current BMPs to achieve further reduction in pollutant loading to the MS4s.
5. Identifies TMDL concerns and an implementation schedule and other tools for addressing those concerns.
6. Identifies pollutants of concern in the regional water bodies.
7. Includes programs and policies to increase public education processes and to seek public support for urban storm water pollution prevention BMPs.
8. Continue with Management Steering Committee and other technical/advisory committees.
9. Includes sections on construction sites, development planning, industrial and commercial sources, and public education and outreach.
10. Includes programs and policies to eliminate illegal discharges and illicit connections to the MS4s.

11. Includes a continued and revised monitoring program for urban runoff.
12. Includes provisions for any special focus studies and/or control measures.

A combination of these programs and policies and the requirements specified in this order should ensure control of pollutants in storm water runoff from owned and/or controlled by the permittees.

VIII. PERMIT REQUIREMENTS AND PROVISIONS

The legislative history of storm water statutes (1987 CWA Amendments), U.S. EPA regulations (40CFR Parts 122, 123, and 124), and clarifications issued by the State Water Resources Control Board (State Board Orders No. WQ 91-03 and WQ 92-04) indicate that a non-traditional NPDES permitting strategy was anticipated for regulating urban storm water runoff. Due to the economic and technical infeasibility of full-scale end-of-pipe treatments and the complexity of urban storm water runoff quality and quantity, MS4 permits generally include narrative requirements for the implementation of BMPs in place of numeric effluent limits.

The requirements included in this order are meant to specify those management practices, control techniques and system design and engineering methods that will result in maximum extent practicable protection of the beneficial uses of the receiving waters. The State Board (Orders No. WQ 98-01 and WQ 99-05) concluded that MS4s must meet the technology-based maximum extent practicable (MEP) standard and water quality standards (water quality objectives and beneficial uses). The U.S. Court of Appeals for the Ninth Circuit subsequently held that strict compliance with water quality standards in MS4 permits is at the discretion of the local permitting agency. Any requirements included in the order that are more stringent than the federal storm water regulations are in accordance with the CWA Section 402(p)(3)(iii), and the California Water Code Section 13377 and are consistent with the Regional Board's interpretation of the requisite MEP standard.

The Report of Waste Discharge (ROWD) included a discussion of the current status of Riverside County's urban storm water management program and the proposed programs and policies for the next five years (third term permit). This order incorporates these documents and specifies performance commitments for specific elements of the Permittees storm water management program.

This order recognizes the progress made by the permittees during the first and second term permits in implementing the storm water regulations. The permit also recognizes regional and innovative solutions to such a complex problem. For these reasons, the order is less prescriptive compared to some of the MS4 NPDES permits for urban runoff issued by other Regional Boards. However, it should achieve the same or better water quality benefits because of the programs and policies already being implemented or proposed for implementation, including regional and watershed wide solutions.

The essential components of the Storm Water Management Program, as established by federal regulations [40 CFR 122.26(d)] are: (i) Adequate Legal Authority, (ii) Fiscal Resources, (iii) Storm Water Quality Management Program (SQMP) - (Public Information and Participation Program, Industrial/Commercial Facilities Program, Development Planning Program, Development Construction Program, Public Agency Activities Program, Illicit Connection and Illicit Discharges Elimination Program), and (iv) Monitoring and Reporting Program. The major sections of the requirements in this Order include: I.

Responsibilities; II. Discharge Limitations/Prohibitions; III. Receiving Water Limitations; IV. Implementation Agreement; V. Legal Authority/Enforcement; VI. Illegal/Illicit Connections/Illegal Discharges; Litter, Debris and Trash Control; VII. Sewage Spills, Infiltration into MS4 Systems from Leaking Sanitary Sewer Lines, Septic System Failures, and Portable Toilet Discharges; VIII. New Development (including significant re-development); IX. Municipal Inspection Program; X. Public Education and Outreach; XI. Municipal Facilities Programs and Policies/Activities; XII. Municipal Construction Projects/Activities; XIII. Program Management/Damp Review; XIV. Monitoring and Reporting Requirements; XV. Provisions; XVI. Permit Expiration and Renewal.
These programs and policies are intended to improve urban storm water quality and protect the beneficial uses of receiving waters of the region.

A. Responsibilities

The responsibilities of the Principal Permittee is to manage the overall storm water program and the Co Permittees are responsible for managing the Storm Water Program within their jurisdictions as detailed in the ROWD and Order No. 96-30 and 90-104.

B. DISCHARGE PROHIBITIONS

In accordance with CWA Section 402(p)(3)(B)(ii), this order prohibits the discharge of non-storm water to the MS4s, with a few exceptions. The specified exceptions are consistent with 40 CFR 122.26(d)(2)(iv)(B)(1). If the permittees or the Executive Officer determines that any of the exempted non-storm water discharges contain pollutants, a separate NPDES permit or coverage under the Regional Board's de Minimus permit will be required.

C. RECEIVING WATER LIMITATIONS

Receiving water limitations are included to ensure that discharges from MS4 systems do not cause or contribute to violations of applicable water quality standards in receiving waters. The compliance strategy for receiving water limitations is consistent with the US EPA and State Board guidance and recognizes the complexity of storm water management.

This Order requires the permittees to meet water quality standards in receiving waters in accordance with US EPA requirements, as specified in State Board Order No. WQ 99-05. If water quality standards are not met by implementation of current BMPs, the permittees are required to re-evaluate the programs and policies and to propose additional BMPs. Compliance determination will be based on this iterative BMP implementation process.

D. IMPLEMENTATION AGREEMENT

The existing Implementation Agreement needs to be revised to include the cities that were not signatories to this Agreement. This section requires that a copy of the signature page and any revisions to the Agreement shall be included in the annual report.

E. LEGAL AUTHORITY/ENFORCEMENT

Each permittee has adopted a number of ordinances, municipal codes, and other regulations to establish legal authority to control discharges to the MS4s and to enforce these regulations as specified in 40 CFR 122.26(d)(2)(I)(B, C, E, and F). The permittees are required to enforce these ordinances and to take enforcement actions against violators (40 CFR 122.26(d)(2)(iv)(A-D).

The enforcement activities undertaken by a majority of the permittees have consisted primarily of Notices of Violation, which act to educate the public on the environmental consequences of illegal discharges. In the case of the County, additional action has sometimes included recovery of investigation and clean-up costs from a responsible party. In the event of egregious or repeated violations, the option exists for a referral to the County District Attorney for possible prosecution. In order to eliminate unauthorized, non-storm water discharges, reduce the amount of pollutants commingling with storm water runoff and thereby protect water quality, an additional level of enforcement is required between Notices of Violation and District Attorney referrals. Therefore, within 17 months of the Order's adoption, the permittees are required to establish the authority and resources to administer either civil or criminal fines and/or penalties for violations of their local water quality ordinances (and the Federal Clean Water Act). The progress in establishing this program must be fully documented in the annual reports submitted by the permittees and the number, nature and amount of fines and/or penalties levied must be reported, beginning with the 2003/2004 annual report.

F. Illicit Connections/Illegal Discharges; Litter, Debris and Trash Control;

Most of the permittees have completed their survey of the MS4 systems and eliminated or permitted all identified illicit connections. The permittees have also established a program to address illegal discharges and a mechanism to respond to spills and leaks and other incidents of discharges to the MS4s. The permittees are required to continue these programs to ensure that the MS4s do not become a source of pollutants in receiving waters.

G. Sewage Spills, Infiltration into MS4 Systems from Leaking Sanitary Sewer Lines, Septic System Failures, and Portable Toilet Discharges;

In recent years, sewage spills/leaks into storm water conveyance systems that discharge into waters of the U.S. have become one of the leading causes of beneficial use impairment. To address these concerns, a set of separate waste discharge requirements for local sanitary sewer agencies is being prepared by the Regional Board. Failing septic systems and improper use of portable toilets have also been linked to microbial contamination of urban runoff. The permittees shall identify, with the appropriate local agency, a mechanism to determine if failure of these septic systems are causing or contributing to urban storm water pollution problems in their jurisdictions. The permittees shall also review their local oversight program for the placement and maintenance of portable toilets to determine the need for any revision.

H. New Development (including significant re-development);

During the second term permit, the permittees developed new development guidelines. The permittees are required to implement these guidelines. Additionally, this order requires the permittees to work towards the goal of restoring and preserving the natural hydrologic cycles in approving urban developments. To accomplish this goal, the permittees have the option of using a number of methodologies. The permittees/project proponents may propose BMPs based on a watershed approach, establish a storm water pollution prevention fund for such BMPs, or any other innovative and proven alternatives to address storm water pollution. Numeric sizing criteria for controls at new and redevelopment sites are specified in this order. Any proposed regional or watershed-wide (or sub-watershed) pollution control measure should afford water quality protection equivalent to or better than that from the prescribed numeric sizing criteria. If a set of measures acceptable to the Executive Officer is not developed and approved by January 14, 2004, the permittees are required to use the numeric sizing criteria specified in the permit. The numeric criteria are identical to the one used by the San Diego Regional Board in its MS4 permit for permittees within the San Diego County area (Order No. 20001-01).

I. Municipal Inspection Program;

Inspections by the municipalities of construction, industrial, and commercial activities within their jurisdiction will be conducted, in order to control the loading of pollutants entering the MS4 system. The municipalities will inventory facilities and sites in the above categories, prioritize these facilities based on threat to water quality, and perform regular inspections to insure compliance with local ordinances. While initial observations of non-compliance may result in 'educational' type enforcement, repeated non-compliance will result in more disciplinary forms of enforcement, such as monetary penalties, stop work orders or permit revocation.

J. Public Education and Outreach;

Public outreach is an important element of the overall urban pollution prevention program. The permittees have committed to implement a strategic and comprehensive public education program to maintain the integrity of the receiving waters and their ability to sustain beneficial uses. The principal permittee has taken the lead role in the outreach programs and has targeted various groups including businesses, industry, development, utilities, environmental groups, institutions, homeowners, school children, and the general public. The permittees have developed a number of educational materials, have established a storm water pollution prevention hotline, started an advertising and educational campaign, and distribute public education materials at a number of public events. The permittees are required to continue these efforts and to expand public participation and education programs.

K. Municipal Facilities Programs and Policies/Activities;

Education of municipal planning, inspection, and maintenance staff is critical to ensure that municipal facilities and activities do not cause or contribute to an exceedance of receiving water quality standards. The second term permit required the permittees to report on an annual basis the actions taken to eliminate the discharge of pollutants from public agency activities and facilities. The permittees are required to inspect and maintain drainage facilities free of waste materials to control pollutants in storm water runoff flowing through these systems. This order requires the permittees to re-evaluate their facilities and activities on an annual basis to see if additional BMPs are needed to ensure water quality protection.

L. Municipal Construction Projects/Activities;

This section addresses the requirements for the construction projects by the Permittees themselves.

M. Program Management/Damp Review;

The DAMP is a management document that needs to be updated with the new requirements of this Order.

N. Monitoring and Reporting Requirements;

During the first term permit and part of the second term permit, the permittees conducted monitoring of the storm water flows, receiving water quality, and sediment quality. The Riverside County monitoring programs, as well as other monitoring programs nationwide, have shown that there is a high degree of uncertainty in the quality of storm water runoff and that there are significant variations in the quality of urban runoff spatially and temporally. However, most of the monitoring programs to date have indicated that there are a number of pollutants in urban storm water runoff. Only in a few cases a definite link between pollutants in urban runoff and beneficial use impairments has been established.

Currently the permittees are cooperating with Board staff in the development and implementation of appropriate monitoring programs to support the development of the Canyon Lake and Lake Elsinore TMDLs. This monitoring program includes sampling stormwater runoff at a variety of sites located throughout the watershed for three storm events per year. Stormwater samples will be collected and analyzed for a variety of constituents, principally nutrients. In addition to these efforts, the permittees are reevaluating their overall storm water monitoring program to determine its effectiveness in meeting the following objectives:

1. Assess rates of mass loading
2. Assess influence of land use on water quality
3. Assess compliance with water quality objectives
4. Assess effectiveness of water quality controls
5. Detect illicit connections and illegal discharges
6. Identify problem areas and/or trends

7. Identify pollutants of concern
8. Identify baseline conditions
9. Establish/maintain a water quality database

To accomplish these goals, the following activities are conducted:
1. Collect water quality data
2. Collect rainfall/runoff data
3. Establish quality assurance/control procedures
4. Conduct data analysis and archiving
5. Install and maintain appropriate equipment
6. Prepare an annual report

The RCFC & WCD, in its role as Principal Permitee, participates in the Southern California Cooperative Stormwater Research/Monitoring Program. The key focus of this Cooperative Monitoring Program is to develop methodologies and assessment tools to more effectively understand urban stormwater and non-stormwater impacts to receiving waters. Additionally, some of the municipal permittees in the San Bernardino County and Riverside County have been requested to participate in the investigation of bacteriological water quality impairments in the Upper Santa Ana River.

The permittees are encouraged to continue their participation in regional and watershed-wide monitoring programs. The permittees are required to submit a revised water quality monitoring plan for the Executive Officer's approval.

IX. WATER QUALITY BENEFITS, COST ANALYSIS, AND FISCAL ANALYSIS

There are direct and indirect benefits from clean beaches, clean water, and a clean environment. It is difficult to assign a dollar value to the benefits the public derives from fishable and swimmable waters. In 1972, at the start of the NPDES program, only 1/3 of the U.S. waters were swimmable and fishable. In 2001, 2/3 of the U.S. waters meet these criteria. In the 1995 "*Money"* magazine survey of the "Best Places to Live", clean water and air ranked as the most important factors in choosing a place to live. Thus environmental quality has a definite link to property values. Clean beaches and other water recreational facilities also attract tourists.

The true magnitude of the urban runoff problem is still elusive and any cost estimate for cleaning up urban runoff would be premature short of end-of-pipe treatments. For urban storm water runoff, end-of-pipe treatments are cost prohibitive and are not generally considered as a technologically feasible option. Over the last decade, the permittees have attempted to define the problem and implemented best management practices to combat the problem.

The costs incurred by the permittees in implementing these programs and policies can be divided into three broad categories:

1. Shared costs: These are costs that fund activities performed mostly by the principal permittee under the Implementation Agreement. These activities include overall storm water program coordination; intergovernmental agreements; representation at the Storm Water Quality Task Force, Regional Board/State Board meetings and other public forums; preparation and submittal of compliance reports and other reports required under the NPDES permits, Water Code Section 13267 requests,

budget and other program documentation; coordination of consultant studies, co-permittee meetings, and training seminars.

2. Individual Costs for DAMP Implementation: These are costs incurred by each permittee for implementing the BMPs (drainage facility inspections for illicit connections, drain inlet/catch basin stenciling, public education, etc.) included in the DAMP. A number of programs and policies for non-point and storm water pollution controls existed prior to the urban storm water runoff NPDES program. However, the DAMP that was developed and implemented in response the urban storm water runoff program required additional programs and policies for pollution control.

3. Individual Costs of Pre-Existing Programs: These are costs incurred by each permittee for water pollution control measures which were already in existence prior to the urban storm water runoff NPDES program. These programs included recycling, litter control, street sweeping, drainage facility maintenance, and emergency spill response.

Historically, the permittees have employed four distinct funding methods to finance their NPDES Activities. Many permittees utilize a combination of these funding sources. The different methods include:

1. Santa Ana Watershed Benefit Assessment Area

In 1991, the principal permittee established the Santa Ana Watershed Benefit Assessment Area (SAWBAA) to fund its NPDES activities. Currently, SAWBAA revenues fund both area-wide NPDES program activities and the principal permittee's individual permit compliance activities.

2. County Service Area 152

In December 1991, the County of Riverside formed County Service Area 152 (CSA 152) to provide funding for compliance activities associated with its NPDES permit activities. Under the laws that govern CSAs, sub-areas may be established within the overall CSA area with different assessment rates set within each sub-area. The cities of Corona, Moreno Valley, Norco, Riverside, Lake Elsinore and San Jacinto elected to participate in CSA 152.

3. Utility Charge

The City of Hemet funds a portion of its NPDES program activities through a utility charge.

4. General Fund /Other Revenues

The remaining permittees utilize general fund revenue to finance their NPDES activities. Several permittees also report using general fund and other revenue sources (e.g., gas taxes, developer fees, etc.) to fund a portion of their stormwater management activities.

The annual report provides the most recent budgets and expenditures projections available for the costs incurred by the permittees in implementing these programs and policies.

X. ANTIDEGRADATION ANALYSIS

The Regional Board has considered whether a complete antidegradation analysis, pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16, is required for these stormwater discharges. The Regional Board finds that the pollutant loading rates to the receiving waters will be reduced with the implementation of the requirements in this order. As a result, the quality of stormwater discharges and receiving waters will be improved, thereby improving protection for the beneficial uses of waters of the United States. Since this order will not result in a lowering of water quality, a complete antidegradation analysis is not necessary, consistent with the federal and state antidegradation requirements.

XI. PUBLIC WORKSHOP

A number of workshops have been held to discuss the draft MS4 permits for the Orange and San Bernardino counties within the Santa Ana Regional Board's jurisdiction. The details regarding these permits are posted on the Regional Board's website or may be obtained by calling the office at 909-782-4130. Building upon those permits, one workshop for the Riverside County MS4 permit is scheduled for the April 26, 2002, Board Meeting in Corona, California. [Postponed to May 31, 2002, in Huntington Beach, California].

The Regional Board recognizes the significance of Riverside County's Storm Water/Clean Water Protection Program and will conduct, participate, and/or assist with at any workshop during the term of this permit to promote and discuss the progress of the storm water management program. The details of the workshop will be posted on the regional Board's website, published in local newspapers and mailed to interested parties. Persons wishing to be included in the mailing list for any of the items related to this permit may register their name, mailing address and phone number with the Regional Board office at the address given below.

XII. PUBLIC HEARING

The Regional Board will hold a public hearing regarding the proposed waste discharge requirements. The public hearing will be scheduled at a later time and information regarding the public hearing will also be posted on the website. Further information regarding the conduct and nature of the public hearing concerning these waste discharge requirements may be obtained by writing or visiting the Santa Ana Regional Board office, 3737 Main Street, Suite 500, Riverside, CA 92501.

XIII. INFORMATION AND COPYING

Persons wishing further information may write to the above address or call Keith Elliott at (909) 782-4925. Copies of the application, proposed waste discharge requirements, and other documents (other than those which the Executive Officer maintains as confidential) are available at the Regional Board office for inspection and copying by appointment scheduled between the hours of 10:00 a.m. and 4:00 p.m., Monday through Friday (excluding holidays).

XIV. REGISTER OF INTERESTED PERSONS

Any person interested in a particular application or group for applications may leave his name, address and phone number as part of the file for an application. Copies of tentative waste discharge requirements will be mailed to all interested parties.

(May 16, 2002 Draft)
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION

ORDER NO. R8-2002-0011
NPDES NO. CAS 618033

WASTE DISCHARGE REQUIREMENTS

FOR
THE RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, THE COUNTY OF RIVERSIDE, AND THE INCORPORATED CITIES OF RIVERSIDE COUNTY WITHIN THE SANTA ANA REGION
AREAWIDE URBAN STORM WATER RUNOFF

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Board) finds that:

1. On August 30, 2000, the Riverside County Flood Control and Water Conservation District (RCFC&WCD), in cooperation with the County of Riverside, and the incorporated cities of Beaumont, Calimesa, Canyon Lake, Corona, Hemet, Lake Elsinore, Moreno Valley, Norco, Perris, Riverside, San Jacinto and Murrieta (hereinafter collectively referred to as dischargers or "Permittees"), jointly submitted a National Pollution Discharge Elimination System (NPDES) Application No. CAS 618033, a Report of Waste Discharge (ROWD), to renew the area-wide NPDES permit for urban storm water runoff. To more effectively carry out the requirements of this Order, the Permittees have agreed that the RCFC&WCD will continue as Principal Permittee and the County and the incorporated cities will continue as Co-Permittees.

2. On February 16, 1999, the City of Murrieta annexed a portion of the unincorporated area of Riverside County within the Santa Ana Watershed. The City of Murrieta has expressed its intent to be a Permittee in this area-wide NPDES permit.

3. On July 13, 1990, the Regional Board adopted Order No. 90-104 (NPDES No. CA 8000192) for urban storm water runoff from areas in Riverside County within the Santa Ana Region. The RCFC&WCD was named as the Principal Permittee and Riverside County and the incorporated cities were named as the Co-Permittees. On March 8, 1996, the Regional Board renewed Order No. 90-104 by adopting Order No. 96-30. Order No. 96-30 expired on March 1, 2001 and on March 2, 2001, Order No. 96-30, NPDES No. CAS618033, was administratively extended in accordance with 40CFR Part 122.6 and Title 23, Division 3, Chapter 9, Section 2235.4 of the California Code of Regulations.

4. This Order renews Order No. 96-30 (NPDES No. CAS618033) and regulates discharges of storm water from conveyance systems within Riverside County under the jurisdiction of and/or maintenance responsibility of the Permittees. This Order is intended to regulate the discharge of pollutants in urban storm water runoff from anthropogenic (generated from non-agricultural human activities) sources under the control of the Permittees and is not intended to address background or naturally occurring pollutants or flows.

5. The federal Clean Water Act (CWA) established a national policy designed to help maintain and restore the physical, chemical and biological integrity of the nation's waters. In 1972, the CWA established the NPDES permit program to regulate the discharge of pollutants from point

sources to waters of the nation (waters of the U. S.). From 1972 to 1987, the main focus of the NPDES program was to regulate conventional pollutant sources such as sewage treatment plants and industrial facilities. As a result, non-point sources, including agricultural runoff and urban storm water runoff, now contribute a larger portion of many kinds of pollutants than the more thoroughly regulated sewage treatment plants and industrial facilities.

6. Studies conducted by the United States Environmental Protection Agency (USEPA), the states, flood control districts and other entities indicate the following major sources of urban storm water pollution nationwide:

   a. Industrial sites where appropriate pollution control and BMPs (BMPs)[1] are not implemented,
   b. Construction sites where erosion and siltation controls and BMPs are not implemented, and
   c. Urban runoff where the drainage area is not properly managed.

   The Permittees are implementing an approved drainage area management plan (DAMP) that properly manages urban runoff from these sources in those portions of the permitted area under their jurisdiction. As reflected in Findings 10 and 11, below, concentrated animal feeding operations (CAFOs), are a significant source of surface water pollution in the Santa Ana River watershed and are regulated under separate Waste Discharge Requirements (NPDES Permit).

7. The 1987 amendments to the CWA added Section 402(p) that required the USEPA to develop permitting regulations for storm water discharges from municipal separate storm sewer systems (MS4) and from industrial facilities, including construction sites. The USEPA promulgated the final Phase I storm water regulations on November 16, 1990. Neither the 1987 amendments to the CWA nor the Phase I storm water regulations have been amended.

8. The CWA, Section 402 (p), established two different performance standards for storm water discharges. NPDES permits for municipal storm water runoff require controls to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP)[2]. NPDES Permits issued for industrial storm water discharges (including construction activities) must meet Best Available Technology (BAT) and Best Conventional Pollutant Control Technology (BCT) standards. The CWA allows states the flexibility to decide what constitutes the MEP.

9. Prior to the USEPA's promulgation of the final storm water regulations, three counties (Orange, Riverside, and San Bernardino) and their incorporated cities located within the Santa Ana Regional Board's jurisdiction requested area-wide NPDES permits for urban storm water runoff. These area-wide NPDES permits are:

   a. Orange County, NPDES No. CAS 618030
   b. Riverside County, NPDES No. CAS 618033

[1] Best Management Practices (BMPs) are water quality management practices that are maximized in efficiency for the control of storm water runoff pollution.
[2] Maximum Extent Practicable (MEP) means the maximum extent feasible, taking into account equitable considerations of synergistic, additive, and competing factors, including but not limited to, gravity of the problem, fiscal feasibility, public health risks, societal concerns, and social benefits.

c. San Bernardino County, NPDES No. CAS 618036

10. A number of permits were adopted to address pollution from the sources identified in Finding 6, above. The State Water Resources Control Board (State Board) issued two statewide general NPDES permits: DWQ Order No. 97-03 for storm water runoff from industrial activities (NPDES No. CAS000001, General Industrial Activities Storm Water Permit) and DWQ Order No. 99-08 for storm water runoff from construction activities (NPDES No. CAS000002, General Construction Activity Storm Water Permit). DWQ Order No. 99-08 was amended by Resolution 2001-046 on April 26, 2001, to incorporate monitoring provisions as directed by the Superior Court, County of Sacramento. Industrial activities (as identified in 40 CFR 122.26(b)(14) and construction sites of five acres or more are required to obtain coverage under these statewide general permits. The State Board also adopted Order No. 99-06-DWQ, NPDES No. CAS000003, for storm water runoff from facilities (including freeways and highways) owned and/or operated by Caltrans. The Regional Board adopted Order 99-11, NPDES No. CAG018001, for concentrated animal feeding operations, including dairies. In addition, the Regional Board adopted Order No. 01-34 on January 19, 2001, for storm water discharges associated with new development (construction) to surface waters in the San Jacinto sub-watershed. The Regional Board also issues individual storm water permits for certain industrial facilities within the Region. Currently there are 16 individual storm water NPDES permits; one of these facilities is located in the Riverside County area. Additionally, for a number of facilities that discharge process wastewater and storm water, storm water discharge requirements are included with the facilities' NPDES permit for process wastewater.

11. The San Bernardino County Flood Control District and RCFC&WCD, in cooperation with local municipalities, are coordinating an effort to construct flood control facilities in the Chino-Corona Agricultural Preserve area located on the border of the San Bernardino and Riverside Counties. The Chino-Corona Agricultural Preserve has the highest concentration of dairy animals in the nation. The ground and surface water quality in the area have been adversely impacted by these dairy operations. The dairies within the Region are regulated under the Board's General Dairy Permit, Order No. 99-11, NPDES No. CAG018001. The General Dairy Permit allows discharge of storm water from dairies only for storms exceeding a 24-hour 25-year frequency. The area lacks appropriate flood control facilities, and runoff from upstream urbanized areas often inundates some of the dairies in the area, even during light or moderate storm and runoff events. This causes dairy waste containment facilities to fail and overflow into surface drainage facilities. This overflow causes nutrient, TDS, TSS, and microbial problems in the receiving waters. The San Bernardino County Flood Control District and RCFC&WCD, in cooperation with local municipalities, are coordinating an effort to construct flood control facilities in the Chino-Corona Agricultural Preserve area located in San Bernardino and Riverside Counties. Riverside County Flood Control District is the lead agency responsible for engineering, design, contract administration, environmental review, and overall project management.

12. The Regional Board is the enforcing authority for the two statewide general permits. However, in most cases, the industrial and construction sites discharge directly into storm drains and/or flood control facilities owned and operated by the Permittees. These industrial and construction sites are also regulated under local laws and regulations. The county and cities review developments in accordance with state planning law to assure that new development is orderly, safe, and consistent with a general plan. This Order establishes a

responsibility of the Permittees to manage water quality in urban runoff. A coordinated effort between the Permittees and the Regional Board staff is critical to avoid duplicative and overlapping efforts when overseeing the compliance of dischargers covered under the Statewide General Permits. As part of this coordination, the Permittees have been notifying Regional Board staff when conditions that result in a threat or potential threat to water quality are observed during their routine activities, or when a required industrial facility or construction activity fails to obtain coverage under the appropriate general storm water permit. To more effectively coordinate these activities, the Regional Board staff intends to post their inspection activities on the Regional Board website related to administration of the Statewide General Permits.

13. Urban storm water runoff includes those discharges from residential, commercial, industrial, and construction areas within the permitted area and excludes discharges from feedlots, dairies, farms, and open space (also see Finding 14, below). Storm water discharges consist of surface runoff from drainage subareas with various, often mixed, land uses within all the hydrologic drainage areas that discharge into the water bodies of the U.S. The municipal separate storm sewers regulated by this Order receive flows from agricultural activities, open space, state and federal properties and other non-urban land uses not under the control of the Permittees. The quality of the discharges from the MS4s varies considerably and is affected by, among other things, past and present land use activities, basin hydrology, geography and geology, season, the frequency and duration of storm events, and the presence of past or present illegal and allowed disposal[3] practices and illicit connections[4].

14. The Permittees may lack legal jurisdiction over storm water discharges into their systems from agricultural activities, State and federal facilities, utilities and special districts, Native American tribal lands, waste water management agencies and other point and non-point source discharges otherwise permitted by the Regional Board. The Regional Board recognizes that the Permittees should not be held responsible for such facilities and/or discharges. Similarly, certain activities that generate pollutants present in storm water runoff may be beyond the ability of the Permittees to eliminate. Examples of these include operation of internal combustion engines, atmospheric deposition, brake pad wear, tire wear, residues from lawful application of pesticides, nutrient runoff from agricultural activities, and leaching of naturally occurring minerals from local geography.

15. Urban storm water or non-storm water runoff may contain elevated levels of pathogens (bacteria, protozoa, viruses), sediment, trash, fertilizers (nutrients, compounds of nitrogen and phosphorus), pesticides (DDT, Chlordane, Diazinon, Chlorpyrifos), heavy metals (cadmium, chromium, copper, lead, zinc), and petroleum products (oil, grease, petroleum hydrocarbons, polycyclic aromatic hydrocarbons). Storm water can carry these pollutants to rivers, streams, lakes, bays and the ocean (receiving waters) These pollutants can then impact the beneficial

[3] Illegal Disposal means any disposal, either intentionally or unintentionally, of material or waste that can pollute storm water or create a nuisance. The term illegal discharge includes all non storm-water discharges except discharges pursuant to an NPDES permit, discharges that are identified in Section II, Discharge Limitations/Prohibitions, of this Order, and discharges authorized by the Regional Board Executive Officer.

[4] Illicit Connection means any connection to the storm drain system that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term illicit connection includes all non storm-water discharges and connections except discharges pursuant to an NPDES permit, discharges that are identified in Section II, Discharge Limitations/Prohibitions, of this Order, and discharges authorized by the Regional Board Executive Officer.

uses of the receiving waters and can cause or threaten to cause a condition of pollution or nuisance.

16. Pathogens (from sanitary sewer overflows, septic system leaks, and spills and leaks from portable toilets, pets, wildlife and human activities) can impact water contact recreation, and non-contact water recreation. Floatables (from trash) are an aesthetic nuisance and can be a substrate for algae and insect vectors. Oil and grease can coat birds and aquatic organisms, adversely affecting respiration and/or thermoregulation. Other petroleum hydrocarbon components can cause toxicity to aquatic organisms and can impact human health. Suspended and settleable solids (from sediment, trash, and industrial activities) can be deleterious to benthic organisms and may cause anaerobic conditions to form. Sediments and other suspended particulates can cause turbidity, clog fish gills and interfere with respiration in aquatic fauna. They can also screen out light, hindering photosynthesis and normal aquatic plant growth and development. Toxic substances (from pesticides, petroleum products, metals, and industrial wastes) can cause acute and/or chronic toxicity, and can bioaccumulate in organisms to levels that may be harmful to human health. Nutrients (from fertilizers, confined animal facilities, pets, and birds) can cause excessive algal blooms. These blooms can lead to problems with taste, odor, color and increased turbidity, and can depress the dissolved oxygen content, leading to fish kills.

17. The water quality assessment conducted by Regional Board staff has identified a number of beneficial use impairments due, in part, to agricultural and urban runoff. Section 303(b) of the CWA requires each of the regional boards to routinely monitor and assess the quality of waters of the region. If this assessment indicates that beneficial uses are not met, then that waterbody must be listed under Section 303(d) of the CWA as an impaired waterbody. The 1998 water quality assessment listed a number of water bodies within the Region under Section 303(d) as impaired waterbodies. In the Riverside County area, these include: Canyon Lake (for nutrients and pathogens); Lake Elsinore (for nutrients, organic enrichment/low D.O., unknown toxicity and sedimentation); Lake Fulmor (for pathogens); Santa Ana River, Reach 3 (for nutrients, pathogens, salinity, TDS, and chlorides); and Santa Ana River, Reach 4 (for pathogens).

18. Federal regulations require that a total maximum daily load (TMDL) be established for each 303(d) listed waterbody for each of the pollutants causing impairment. The TMDL is the total amount of the problem pollutant that can be discharged while water quality standards in the receiving water are attained, i.e., water quality objectives are met and the beneficial uses are protected. It is the sum of the individual waste load allocations (WLA) for point source inputs, load allocations (LA) for non-point source inputs and natural background, with a margin of safety. The TMDLs are the basis for limitations established in waste discharge requirements. TMDLs are being developed for sediment, pathogens, and nutrients for Lake Elsinore and Canyon Lake. The Permittees are providing assistance and cooperating with Regional Board staff in the TMDL efforts. This permit may be reopened to include TMDL implementation, if other implementation methodologies are not effective.

19. The Western Riverside Council of Governments estimated Riverside County's population in the year 2000 to be about 1,687,800. The 2000 Annual Report submitted by the Permittees estimated that within the Santa Ana Region, the Permittees serve a population of

approximately 1,013,000. The urbanized area of Riverside County occupies an area of approximately 1,360 square miles. The permitted area is shown in Appendix 1.

20. Riverside County has residential, commercial and industrial urbanized developments. Urban development generally increases impervious surfaces and storm water runoff volume and velocity; and decreases vegetated pervious surface available for infiltration of storm water. Increase in runoff volume and velocity may cause scour, erosion (sheet, rill and/or gully), aggradation (raising of a streambed from sediment deposition), changes in fluvial geomorphology, hydrology, and changes in aquatic ecosystem. Local agencies (the Permittees) are the owners and operators of the MS4 systems and have authority to control most of the discharges to these systems. The Permittees have established appropriate legal authority to control the exposure of pollutants to storm water, non-storm water discharges into the MS4 systems, and drainage and flood control design requirements for new development.. They adopted grading and/or erosion control ordinances; guidelines and BMPs for municipal, commercial, and industrial activities, and aDAMP. The Permittees have been and must continue to exercise a combination of these programs, policies, and legal authority and other additional requirements to ensure that pollutant loads resulting from urbanization are properly controlled and managed to the MEP.

21. The Permittees own and/or operate MS4 systems through which urban runoff is discharged into waters of the United States. The Permittees have identified major outfalls (with a pipe diameter of 36 inches or greater or drainage areas draining 50 acres or more) and have submitted maps of existing storm drain facilities. The Permittees reported having approximately 809,597 linear feet of under ground storm drains, and 112,677 linear feet of channels. The RCF&WCD reported having 135 miles in underground storm drains and 133 miles of channels.

22. The MS4s generally contain non-storm water flows that may include runoff from agriculture and landscape irrigation, residential car washing, miscellaneous washing and cleaning operations, and other nuisance flows. Non-storm water discharges containing pollutants are prohibited into the MS4 systems and to any waters of the United States, unless they are regulated under a separate NPDES permit; certain types non-storm water containing insignificant amount of pollutants are exempt as indicated in Discharge Prohibitions, Section II, Item C. of this permit.

23. The first (Order No. 90-104) and second (Order No. 96-30) term permits, required the Permittees to: (1) develop and implement a drainage area management plan (DAMP) and storm water and receiving water monitoring and reporting programs; (2) eliminate illegal discharges[5] and illicit connections to the storm drain systems; and (3) enact the necessary legal authority to effectively prohibit such discharges. The overall goal of these requirements was to reduce pollutant loading to surface waters from urban runoff to the MEP. The DAMP outlines the major programs and policies for controlling pollutants in storm water runoff and it was approved on January 18, 1994. Since then, changes have been made and the DAMP continues to be a dynamic document. This Order requires the Permittees to continue to

[5] Illegal discharge means any discharge to the municipal separate storm sewer that is not composed entirely of storm water except for the authorized discharges listed in Section II, Item C of this permit. Illegal discharges include the improper disposal of wastes into the storm sewer system.

implement the BMPs listed in the DAMP and update or modify the DAMP, when appropriate, consistent with the MEP and other applicable standards; and to continue to effectively prohibit illegal discharges and illicit connections to the storm drain system.

24. The ultimate goal of the urban storm water management program is to protect beneficial uses by ensuring that the flows from the MS4s do not cause or contribute to an exceedance of water quality objectives for the receiving waters. The DAMP identifies programs and policies including BMPs to achieve this goal. These BMPs are organized into two components: BMPs for existing facilities and BMPs for new development. Both components include regulatory activities, public education programs, solid waste management, and operations and maintenance activities.

25. There are pollutants in urban runoff from privately owned and operated facilities such as residences, businesses and commercial establishments and public and private institutions. A successful storm water management plan should include the participation and cooperation of the public, businesses, and institutions. Therefore, public education is a critical element of the DAMP. As the population increases in Riverside County it will be even more important to continue to educate the public regarding the impact of human activities on the quality of urban runoff.

26. The Permittees have developed project conditions of approval requiring coverage under the State's General Permit for new developments to be implemented at the time of grading or building permit issuance for construction sites on five acres or more and at the time of local permit issuance for industrial facilities.

27. This Order requires the Permittees to continue to implement the BMPs listed in the current DAMP and approved revisions to the DAMP, and to continue to effectively prohibit illegal discharges and illicit connections to the storm drain system. One of the major elements of the DAMP, the Storm Water/Urban Runoff Management and Discharge Control Ordinance, was adopted by Riverside County on May 9, 1995. The purpose of this ordinance, applicable to unincorporated areas of Riverside County, is to prohibit pollutant discharges in storm water and to regulate illicit connections and non-storm water discharges to the storm drain system. The ultimate goal of the urban storm water management program is to support attainment of water quality objectives for the receiving waters and to protect beneficial uses through the implementation of the DAMP.

28. The Permittees approve plans for residential, commercial, and industrial developments, thus allowing further urbanization to occur within their respective jurisdictions. If not properly controlled and managed, urbanization could result in the discharge of pollutants to rivers, streams, lakes, bays, and the ocean (receiving waters) by storm water runoff. Discharges from Riverside County have historically reached the ocean infrequently.

29. This Order requires the Permittees to examine the source of pollutants in storm water runoff from those activities that the Permittees conduct, approve, regulate and/or issue a license or permit. The Permittees are required to ensure, to the MEP, that the flows from the MS4s do not cause or contribute to an exceedance of the water quality objectives in the receiving waters.

30. The Permittees generally conduct inspections of construction sites, within their jurisdiction, to determine compliance with local storm water ordinances and inspect industrial and commercial facilities to determine compliance and for other regulatory purposes. The Permittees have established an Enforcement Compliance Strategy (ECS) for residential, industrial, and commercial facilities and construction sites. Additionally, as part of their storm water management activities, the permittees have developed and funded, in cooperation with the Riverside County Environmental Health Department, the storm water Compliance Assistance Program (CAP) which include a storm water inspection component with the existing inspections of hazardous material handlers and retail food service activities. The initial phase of the program consisted primarily of educational outreach to the inspected facilities. The CAP has entered a second phase, which involves a detailed storm water inspection for each of the visited facilities. Annually, approximately 2400 industrial and 4000 commercial inspections are conducted County-wide through this program. The Permittees have agreed to notify Regional Board staff when conditions are observed during such inspections that result in a threat or potential threat to water quality. This also includes failure to obtain coverage under the general storm water permits or the San Jacinto Watershed Construction Activities Permit.

31. The Permittees own/operate facilities where industrial or related activities take place that may have an impact on storm water quality. Some of the Permittees also enter into contracts with outside parties to carry out activities that may also have an impact on storm water quality. These facilities and related activities include, but are not limited to, street sweeping, catch basin cleaning, maintenance yards, vehicle and equipment maintenance areas, waste transfer stations, corporation and storage yards, parks and recreational facilities, landscape and swimming pool maintenance activities, storm drain system maintenance activities and the application of herbicides, algaecides and pesticides. As part of Order 96-30, the Permittees were required to assess public agency activities and facilities for potential impact to storm water quality and develop their agency-specific Municipal Facility Strategy. This Order requires the Permittees to continue to implement BMPS that are reducing pollutant discharges from those activities/facilities found to be significant sources of pollutants. Non-storm water discharges from these facilities and/or activities also affect water quality. This Order prohibits non-storm water discharges from public facilities unless the discharges are exempt under the Discharge Limitations section of this Order or are permitted by the Regional Board under an individual NPDES permit.

32. To characterize storm water discharges, to identify problem areas, and to determine the effectiveness of the various BMPs, an effective monitoring and reporting program is necessary. From 1995 through 2000, the Principal Permittee administered the monitoring and reporting program for the Permittees that included storm water monitoring, receiving water monitoring, dry weather monitoring and sediment monitoring. The Report of Waste Discharge included an overview of the Consolidated Program for Water Quality Monitoring.

33. The Permittees have agreed to revise the implementation agreement that was developed in 2000 as per this Order to coordinate the activities of the Permittees.

34. By January 1, 2003, the State Board is required by SB 72 (Water Code Section 13383.5) to develop a statewide municipal storm water monitoring and reporting program. Subsequently, the Permittees are required to develop a revised monitoring and reporting program as

specified in the monitoring and reporting program and consistent with new requirements developed by the State Board.

35. In addition to the Regional Board, a number of other stakeholders are involved in the management of the water resources of the Region. These include, but are not limited to, the incorporated cities in the Region, publicly owned treatment works, the three counties, and the Santa Ana Watershed Project Authority and its member agencies. The entities listed in Appendix 2 are considered as potential dischargers of storm water to the Riverside County drainage areas. It is expected that these entities will also work cooperatively with the Permittees to manage urban runoff. The Regional Board has the discretion and authority to require non-cooperating entities to participate in this area-wide permit or to issue individual storm water permits, pursuant to 40 CFR 122.26(a). Cooperation and coordination among the stakeholders are critical to optimize the use of limited resources and ensure economical management of the watershed. Recognizing this fact, this Order focuses on watershed management and seeks to integrate the programs of all the stakeholders, especially the three municipal storm water permit holders, within this watershed.

36. In accordance with the Strategic Plan for the State and Regional Boards (November 2001), the Regional Board recognizes the importance of an integrated watershed management approach. The Regional Board also recognizes that a watershed management program should integrate related programs, including the storm water program and TMDL processes.

37. Illegal discharges to the storm drains can contribute to storm water and other surface water contamination. The District was required by the 1990 MS4 permit to conduct an inspection of underground storm drains and only one illicit connection could be identified. Open channels and other aboveground elements of the municipal separate storm drain systems are inspected for evidence of illegal discharges as an element of routine maintenance by the Permittees. The Permittees also developed a program to prohibit illegal discharges and illicit connections to their storm drains and flood control facilities. Continued surveillance and enforcement of these programs are required to eliminate illicit connections and illegal discharges. The Permittees have a number of mechanisms in place to eliminate illicit connections and illegal discharges to the MS4s, including construction, commercial, and industrial facility inspections, drainage facility inspections, water quality monitoring and reporting programs, and public education.

38. The Permittees have the authority to control pollutants in storm water discharges, to prohibit illicit connections and illegal discharges, to control spills, and to require compliance and carry out inspections of the storm drain systems within their jurisdictions. The Permittees have various forms of legal authority in place, such as charters, State Code provisions for General Law cities, city ordinances, and applicable portions of municipal codes and the State Water Code, to regulate storm water/urban runoff discharges. In order to insure countywide consistency and to provide a legal underpinning to the entire Riverside County storm water program, a model water quality ordinance was completed on April 28, 1995, and was adopted by all the Permittees. The Permittees are required by this Order to review their existing enforcement authority to determine whether additional legal authority is needed in order for Permittees to administer civil and/or criminal penalties in enforcement actions for violations of the Water Quality Ordinance.

39. Pollution prevention techniques, appropriate planning processes and early identification of potential storm water impacts and mitigation measures may significantly reduce storm water pollution problems. The Permittees consider these impacts and appropriate mitigation measures in planning procedures, in the California Environmental Quality Act (CEQA) review process for specific projects, Master Plans, and other relevant documents. This Order requires the Permittees to review their CEQA and General Plan processes to determine the need for revisions.

40. The legislative history and the preamble to the federal storm water regulations indicate that the Congress and the U.S. EPA were aware of the difficulties in regulating urban storm water runoff solely through traditional end-of-pipe treatment. However, it is the Regional Board's intent that this Order requires the implementation of BMPs to reduce to the MEP, the discharge of pollutants in storm water from the MS4s in order to support attainment of water quality standards. This Order, therefore, includes Receiving Water Limitations[6] based upon water quality objectives, prohibits the creation of nuisance and requires the reduction of water quality impairment in receiving waters. In accordance with Section 402 (p) of the CWA, this Order requires the Permittees to implement control measures that will reduce pollutants in storm water discharges to the MEP. The Receiving Water Limitations similarly require the implementation of control measures to protect beneficial uses and attain water quality objectives of the receiving waters.

41. The Regional Board finds that the unique aspects of the regulation of storm water discharges through municipal storm sewer systems, including the intermittent nature of discharges, difficulties in monitoring and limited physical control over the discharge, will require adequate time to implement and evaluate the effectiveness of BMPs. Therefore, the Order includes a procedure for determining whether storm water discharges are causing or contributing to exceedances of receiving water limitations and for evaluating whether the DAMP must be revised in order to comply with this aspect of the Order. The Order establishes an iterative process to maintain compliance with the receiving water limitations.

42. Approximately one quarter (1/4) of the entire Riverside County area drains into water bodies within the Santa Ana Region. Most of the urbanized areas of Riverside County lie within this Regional Board's jurisdiction. The San Diego and the Colorado River Basin Regional Water Quality Control Boards regulate storm water runoff from other portions of Riverside County.

43. The Santa Ana River Basin is the major watershed within this Region. This watershed is divided into three sub-watersheds: the Lower Santa Ana, Upper Santa Ana, and San Jacinto. The lower Santa Ana River sub-watershed (downstream from Prado Basin) includes the north half of Orange County and the Upper Santa Ana River sub-watershed includes the southwestern corner of San Bernardino County and the northwestern corner of Riverside County. The San Jacinto sub-watershed includes the northwest corner of Riverside County south of the Upper Santa Ana River sub-watershed within this Region.

44. The Santa Ana River is the major receiving water in the permitted area. During non-storm periods the flow is dominated by effluent from NPDES permitted POTW discharges. In

[6] Receiving Water Limitations are requirements included in the Orders issued by the Board to assure that the regulated discharge does not violate water quality standards established in the Basin Plan at the point of discharge to waters of the State.

addition, the quality of the Santa Ana River is greatly influenced by agricultural activities. Urban runoff from the permitted area may constitute a minor component of the dry weather flow in the Santa Ana River.

45. Generally, the San Bernardino County drainage areas drain to the Riverside County drainage areas, and Riverside County drainage areas discharge to Orange County through Prado Dam on the Santa Ana River. Most of the flow in the Santa Ana River is recharged into the ground water in Orange County but some of the flows may reach the Pacific Ocean infrequently as a result of heavy storm events.

46. Water from rainfall and snow melt runoff, and surfacing ground water from various land use areas either discharge directly to the Santa Ana River or to watercourses tributary to the Santa Ana River. Other major rivers in the area include the San Jacinto River and Temescal Creek. The San Jacinto Mountain areas drain into the San Jacinto River, which discharges into Canyon Lake and thence to Lake Elsinore. Any overflow from Lake Elsinore is tributary to Temescal Creek, which flows into the Santa Ana River at the Prado Flood Control Basin. Overflow from Lake Elsinore occurs infrequently, only once every 12 to 15 years.

47. A revised Water Quality Control Plan (Basin Plan) was adopted by the Regional Board and became effective on January 24, 1995. The Basin Plan contains water quality objectives and beneficial uses for water bodies in the Santa Ana Region. The Basin Plan also incorporates by reference all State Board water quality control plans and policies.

48. The requirements contained in this Order are necessary to implement the Basin Plan. The Basin Plan contains numeric and narrative water quality standards for the water bodies in this Region. This Order does not contain numeric effluent limitations for any constituents because the impact of the storm water discharges on the water quality of the receiving waters has not yet been fully determined. Continuation of water quality/biota monitoring and analysis of the data are essential to make that determination. The existing Basin Plan, or further changes to the Basin Plan, may be grounds for the Permittees to revise its DAMP.

49. Permittees will be required to comply with future water quality standards or discharge requirements, which may be imposed by the USEPA or State of California prior to the expiration of this permit. This permit may be reopened to include TMDLs and/or other requirements developed and adopted by the Regional Board.

50. The Permittees may petition the Regional Board to issue a separate NPDES permit to any discharger of non-storm water into storm drain systems that they own or operate.

51. The Permittees have developed a Storm Water Implementation Agreement between the County, its cities and the RCFC&WCD. The Implementation Agreement establishes the responsibilities of each party and a funding mechanism for the shared costs. The Permittees have agreed to revise the implementation agreement that was developed in 2000 as per this Order to coordinate the activities of the Permittees.

52. The Permittees control litter to eliminate trash and other anthropogenic materials in storm water runoff. In addition to the municipal ordinances prohibiting litter, the Permittees should continue to participate or organize a number of other programs such as solid waste collection

programs, household hazardous waste collections, hazardous material spill response, catch basin cleaning, additional street sweeping, and recycling programs to reduce litter and illegal discharges that address urban sources of these materials. This Order includes requirements for continued implementation of these programs for litter, trash, and debris control.

53. The Regional Board and the Permittees recognize the importance of watershed management initiatives and regional planning and coordination in the development and implementation of programs and policies related to water quality protection. A number of such efforts are underway in which the Permittees are active participants. This Order encourages continued participation in such programs and policies. The Regional Board also recognizes that in certain cases, diversion of funds targeted for certain monitoring and reporting programs to regional monitoring programs may be necessary. The Executive Officer is authorized to approve, after proper public notification and consideration of comments received, the watershed management initiatives and regional planning and coordination programs and regional monitoring programs. The Permittees are required to submit all documents, where appropriate, in an electronic format. These documents will be posted at the Regional Board's website and interested parties will be notified. In addition, the website will include the administrative and civil procedures to appeal any decision made by the Executive Officer.

54. The storm water regulations require public participation in the development and implementation of the storm water management program. As such, the Permittees are required to solicit and consider all comments received from the public and submit copies of the comments to the Executive Officer of the Regional Board with the annual reports due on November 30. In response to public comments, the Permittees may modify reports, plans, or schedules prior to submittal to the Executive Officer.

55. In accordance with California Water Code Section 13389, the issuance of waste discharge requirements for this discharge is exempt from those provisions of the California Environmental Quality Act contained in Chapter 3 (commencing with Section 21100), Division 13 of the Public Resources Code.

56. The Regional Board has considered anti-degradation requirements, pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16, for this discharge. The Regional Board finds that the storm water discharges are consistent with the federal and state anti-degradation requirements and a complete anti-degradation analysis is not necessary. This Order requires the continued implementation of programs and policies to reduce the discharge of pollutants in storm water runoff. The Order includes additional requirements to control the discharge of pollutants in storm water runoff from new and significant redevelopment.

57. The Regional Board has notified the Permittees and interested parties of its intent to issue waste discharge requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.

58. The Regional Board, in a public hearing, heard and considered all comments pertaining to the discharge and to the tentative requirements.

IT IS HEREBY ORDERED that the Riverside County Flood Control and Water Conservation District (RCFC&WCD-Principal Permittee), the County of Riverside, and the incorporated cities of

Beaumont, Calimesa, Canyon Lake, Corona, Hemet, Lake Elsinore, Moreno Valley, Norco, Perris, Riverside, San Jacinto and Murrieta (the Co-Permittees), (collectively referred to as the Permittees), in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act (CWA), as amended, and the regulations and guidelines adopted there under, shall comply with the following:

I. RESPONSIBILITIES:

A. Responsibilities of the Principal Permittee:

1. The Principal Permittee shall be responsible for managing the overall storm water program and shall:

   a. Coordinate revisions to the DAMP.
   b. Implement management programs, monitoring and reporting programs, and related plans as required by this Order.
   c. Conduct chemical and biological water quality monitoring as required by the Executive Officer of the Regional Board.
   d. Conduct inspections and maintain the storm drain systems within its jurisdiction.
   e. Within 6 months of adoption of this Order, evaluate the established criteria for inspections of the municipal storm sewer systems and establish criteria for regular maintenance and cleaning of storm drain systems.
   f. Review and revise, if necessary, agreements, policies and ordinances necessary to establish and maintain adequate legal authority as required by the Federal Storm Water Regulations (see also Section V - Legal Authority/Enforcement of this Order);
   g. Take appropriate enforcement actions for illegal discharges to the MS4 systems within its jurisdiction, and pursue enforcement actions as necessary within its jurisdiction to ensure compliance with storm water management programs, ordinances and implementation plans, including physical elimination of undocumented connections and illegal discharges (see also Section V - Legal Authority/Enforcement of this Order);
   h. Respond and/or arrange for responding to emergency situations such as accidental spills, leaks, illegal discharges/ illicit connections, etc., to prevent or reduce the discharge of pollutants to the municipal separate storm sewer systems and to waters of the U. S.
   i. Prepare and submit to the Regional Board Executive Officer, unified reports, plans, and programs necessary to comply with this Order.

2. The activities of the Principal Permittee should also include, but not be limited to, the following:

   a. Establish a Management Steering Committee as described in the ROWD to address municipal stormwater management policy, review, and approve a revised SAR DAMP, and Implementation Agreement revisions. The Management Steering Committee will meet at least quarterly or more frequently as determined by the Chair.

b. Coordinate and conduct Technical Committee meetings, at least ten times per year. The purpose of the Technical Committee is to direct the development of the SAR DAMP, and coordinate the implementation of the overall municipal storm water program, as described in the ROWD. The ROWD further indicates that the Technical Committee will consist of representatives of each Permittee.
c. The Principal Permittee will take the lead role in initiating and developing area-wide programs and activities necessary to comply with the NPDES Permit.
d. Coordinates permit activities and participate in committees/subcommittees formed to coordinate permit compliance activities.
e. Coordinate activities pertaining to implementation of this Order with the Regional Board, including the submittal of all reports, plans, and programs as required under this Order.
f. Provide technical and administrative support to the Co-Permittees, including informing them of the progress of other known pertinent municipal programs, pilot projects, research studies, etc.
g. Coordinate and in conjunction with the Co-Permittees, implement storm water quality management programs, monitoring and reporting programs, implementation plans, public education, other pollution prevention measures, household hazardous waste collection, and all BMPs outlined in the DAMP within each respective jurisdiction, and take other actions as may be necessary to meet the MEP standard.
h. Gather and disseminate information on the progress of statewide municipal storm water programs and evaluate the information for potential use in the execution of this Order. Hold workshops focused on storm water regulatory requirements and BMPs, and other related topics.
i. Monitor the implementation of the plans and programs required by this Order and determine their effectiveness in attaining water quality standards. This determination shall include a comparative analysis of monitoring data to the USEPA Multi-Sector Permit Parameter Benchmark Values and applicable water quality objectives for inland surface streams as specified in Chapter 4 of the Basin Plan and other applicable standards. A pollutant source investigation and control plan shall be specified where elevated pollutant levels are identified. This evaluation shall be included in the annual report submitted to the Executive Officer.
j. Solicit and coordinate public input for major changes to the storm water management programs and implementation plans.
k. Develop and implement mechanisms, performance standards, etc., to promote consistent implementation of BMPs as well as storm water management programs among the Permittees.
l. Participate in watershed management programs and regional and/or statewide monitoring and reporting programs.

B. Responsibilities of the Co-Permittees:

1. Each Co-Permittee shall be responsible for managing the storm water program within its jurisdiction and shall:

a. Enact and revise policies and ordinances necessary to establish and maintain adequate legal authority as stated in Section IV.A of this Order and as required by the Federal Storm Water Regulations, 40CFR, Part 122.26(d)(2)(I)(A-F)
b. Conduct storm drain system inspections and maintenance in accordance with the criteria developed by the Permittees.
c. Within 6 months of this Order's adoption, the Permittees shall evaluate their ordinances to determine if they are authorized to impose administrative fines for storm water violations. Government Code Section 53069.4 authorizes cities to make violations of ordinance subject to an administrative fine or penalty instead of criminal prosecution. If necessary, the Permittees shall adopt ordinances to set a penalty structure and to authorize them to impose and collect fines administratively.
d. Implement management programs, monitoring and reporting programs, all BMPs listed in the DAMP, and related plans as required by this Order and take such other actions as may be necessary to meet the MEP standard.
e. Secure sufficient funding for the area-wide storm water management plan, local storm water program management, storm water enforcement, public outreach and education activities and other storm water related program implementation.
f. Coordinate among their internal departments and agencies, as appropriate, to facilitate the implementation of this Order and the DAMP.
g. Pursue enforcement actions as necessary within its jurisdiction for violations of storm water ordinances, prohibitions on illicit connections and illegal discharges, and other elements of its storm water management program.

2. The Co-Permittees' activities should include, but not be limited to, the following:

a. Respond to emergency situations such as accidental spills, leaks, illegal discharges/illicit connections, etc. to prevent or reduce the discharge of pollutants to storm drain systems and waters of the U. S.
b. Participate in a Technical Committee, as described in Section A.2.b., above. The Co-Permittees shall comply with the minimum attendance requirement for Committee and Sub-Committee meetings as set forth in this Order. Designate at least one representative to the Management Committee and Technical Committee and attend at least 3 out of four Management Committee meeting and 9 out of the 10 Technical Committee meetings per year. The principal permittee shall be notified immediately, in writing of changes to the designated representative to the Management Committee.
c. Conduct and coordinate with the Principal Permittee surveys, monitoring and/or characterizations needed to identify the pollutant sources and drainage areas.
d. Prepare and submit reports to the Principal Permittee in a timely manner.
e. Review, comment, approve, and implement plans, strategies, management programs, monitoring and reporting programs, as developed by the Principal Permittee or any subcommittee to comply with this Order.
f. Participate in committees and/or subcommittees formed by the Principal Permittee to address compliance with this Order.
g. Submit up-to-date storm drain system maps to the Principal Permittee. If necessary, these maps should be revised on an annual basis and the revised

maps should be submitted to the Principal Permittee with the annual report information.

h. Prepare and submit to the Principal Permittee in a timely manner specific reports/information, related to the Permittees' storm water program, necessary to develop a unified report for submittal to the Executive Officer of the Regional Board.

II. DISCHARGE LIMITATIONS/PROHIBITIONS:

A. In accordance with the requirements of 40 CFR 122.26(d)(2)(I)(B) and 40 CFR 122.26(d)(2)(i)(F), the Permittees shall continue to prohibit illicit connections/illegal discharges (non-storm water) from entering municipal separate storm sewer systems.

B. The discharge of storm water from Permitees' MS4s to waters of the United States containing pollutants that have not been reduced to the MEP is prohibited.

C. The Permittees shall continue to effectively prohibit the discharge of non-storm water into the MS4s, unless such discharges are authorized by a separate NPDES permit or otherwise as specified in this provision. The Permittees need not prohibit the discharges identified below. If however, these discharges are identified by the Permittees or the Executive Officer as a significant source of pollutants, coverage under the Regional Board's De Minimus permit may be required.

1. Discharges covered by a NPDES permit, or written clearances issued by the Regional or State Board;

2. Discharges from potable water line flushing and other potable water sources;

3. Emergency fire fighting flows (i.e., flows necessary for the protection of life and property) do not require BMPs and need not be prohibited. However, appropriate BMPs shall be considered where practicable when not interfering with emergency health and safety issues;

4. Discharges from landscape irrigation, lawn/garden watering and other irrigation waters;

5. Air conditioning condensate;

6. Diverted stream flows;

7. Rising ground waters and natural springs;

8. Groundwater infiltration (as defined in 40 CFR 35.2005(20)) and uncontaminated pumped groundwater;

9. Passive foundation drains;

10. Passive footing drains;

11. Water from crawl space pumps;

12. Non-commercial vehicle washing, (e.g. residential car washing (excluding engine degreasing) and car washing fundraisers by non-profit organization);

13. Flows from riparian habitats and wetlands;

14. Dechlorinated swimming pool discharges;

15. Waters not otherwise containing wastes as defined in California Water Code Section 13050 (d); and

16. Other types of discharges:

    a. Identified and recommended by the Permittees and approved by the Regional Board.
    b. The Regional Board may issue Waste Discharge Requirements for discharges exempted from NPDES requirements, such as agricultural irrigation waters, if identified to be a significant source of pollutants.

D. The Regional Board may add categories of non-storm water discharges that are not significant sources of pollutants or remove categories of non-storm water discharges listed in Section II.C. above, based upon a finding that the discharges are a significant source of pollutants.

E. When a discharge category above is identified as a significant source of pollutants to waters of the United States, the Permittee shall either: Prohibit the discharge category from entering its MS4; or ensure that structural and non-structural BMPs are implemented to reduce or eliminate pollutants.

F. Within 18 months of this Order's adoption, the Permittees shall evaluate the permitted discharges listed in C, above, to determine if they contain pollutants in the specific areas managed by the Permitees.

G. The Permittees shall continue to reduce the discharge of pollutants, including trash and debris, from the storm water conveyance systems to the MEP.

III. RECEIVING WATER LIMITATIONS

A. Discharges from the MS4s shall not cause or contribute to exceedances of receiving water quality standards (designated beneficial uses and water quality objectives contained in the Basin Plan) for surface waters or ground waters.

B. Discharge of storm water, or non-storm water from MS4s for which a Permittee is responsible, shall not cause or contribute to a condition of nuisance as the term is defined in Section 13050 of the Water Code.

C. The DAMP and its components shall be designed to achieve compliance with receiving water limitations. It is expected that compliance with receiving water limitations will be achieved through an iterative process and the application of increasingly more effective BMPs.

D. The Permittees shall comply with Sections II and III of this Order through timely implementation of control measures and other actions to reduce pollutants in urban storm water runoff in accordance with the DAMP and other requirements of this Order, including modifications thereto.

E. If exceedance(s) of water quality standards persist, notwithstanding implementation of the DAMP, Section II.F, above, and other requirements of this Order, the Permittees shall assure compliance with Sections II.B and III of this Order by complying with the following procedure:

1. Upon a determination by either the Permittees or the Executive Officer that the discharges from the MS4 systems are causing or contributing to an exceedance of an applicable water quality standard, the Permittees shall promptly notify and thereafter submit a report to the Executive Officer that describes BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce pollutants that are causing or contributing to the exceedance of water quality standards.

    a. Determination of the effect of discharges from the MS4 systems on water quality standards shall include a comparative analysis of monitoring data to the USEPA Multi-Sector Permit Parameter Benchmark Values and applicable water quality objectives for inland surface streams as specified in Chapter 4 of the Basin Plan and other applicable standards.

    b. The report shall address the causes of the impairment or exceedance, and the technical and economic feasibility of control actions available to the Permittees to reduce or eliminate the impairment or exceedance. The report may be incorporated in the annual update to the DAMP, unless the Executive Officer directs an earlier submittal. The report shall include an implementation schedule. The Executive Officer may require modifications to the report;

2. Submit modifications to the report required by the Executive Officer within 30 days of notification;

3. Within 90 days following approval by the Executive Officer of the report described above, the Permittees shall revise the DAMP and monitoring and reporting program to incorporate the approved modified BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring required;

4. Implement the revised DAMP and monitoring program in accordance with the approved schedule.

5. A pollutant source investigation and control plan shall be developed and submitted to the Executive Officer for approval. The Permitees shall implement this plan when elevated pollutant levels are identified. Alternatively, if the exceedances are solely due to discharges to the MS4 that are outside the Permittees jurisdiction or control, the Permittees shall notify the Executive Officer by telephone or e-mail within 24 hours of discovery and provide written documentation of these discharges within 10 days.

6. So long as the Permittees have complied with the procedures set forth above and are implementing the revised DAMP, the Permittees do not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless the Executive Officer determines it is necessary to develop additional BMP's.

IV. IMPLEMENTATION AGREEMENT

A. Within six months of this Order's adoption, the existing Implementation Agreement shall be revised to include the cities that were not signatories to this Agreement. A copy of the signature page and revisions to the Agreement shall be included in the annual report.

B. No later than November 30 of each year, the Permittees shall evaluate the storm water management structure and the Implementation Agreement and determine the need for revision. The annual report shall include the findings of this review and a schedule for any necessary revision(s).

V. LEGAL AUTHORITY/ENFORCEMENT:

A. The Permittees shall continue to maintain adequate legal authority to control the contribution of pollutants to the MS4 systems by storm water discharges and enforce those authorities.

B. The Permittees shall take appropriate enforcement actions against violators of their Water Quality Ordinance, in accordance with the adopted/established guidelines and procedures developed by the Permittees Management Steering Committee. Enforcement actions shall continue to be consistent with the Enforcement Guidance developed by the Permittees.

C. Permittees' ordinances or other local regulatory mechanisms shall include sanctions to ensure compliance. Sanctions shall include but are not limited to: monetary penalties, non-monetary penalties, bonding requirements, and/or permit denials for non-compliance. If the Permittees' current ordinances do not have a provision for civil or criminal penalties for violations of their water quality ordinances, the Permittees shall enact such ordinances within 12 months of this Order's adoption.

D. The Permittees shall continue to provide notification to Regional Board staff regarding storm water related information gathered during site inspections of construction, and industrial sites regulated by the Statewide General Storm Water Permits or San Jacinto Watershed Construction Activities Permit and at sites that should be regulated under these Permits. The notification should include observed violations of the General Permits, prior history of violations, enforcement actions taken by the Permittee, and other relevant information. In addition, Sections IX, X, and XII of this Order address additional notification requirements for construction, industrial and commercial sites not covered under the State's General Permits and the San Jacinto Watershed Wide Permit.

E. Within 12 months of this Order's adoption, and annually thereafter in November, the Permittees shall review their water quality ordinances and provide a report on the effectiveness of their water quality ordinances and their enforcement, in prohibiting the following types of discharges to the MS4s (the Permittees may propose appropriate control measures in lieu of prohibiting these discharges, where the Permittees are responsible for ensuring that dischargers adequately maintain those control measures):

1. Sewage, where a Co-Permittee operates the sewage collection system;

2. Wash water resulting from the hosing or cleaning of gas stations, and other types of automobile service stations;

3. Discharges resulting from the cleaning, repair, or maintenance of equipment, machinery, or facilities, including motor vehicles, concrete mixing equipment, portable toilet servicing, etc.;

4. Wash water from mobile auto detailing and washing, steam and pressure cleaning, carpet cleaning, etc.;

5. Water from cleaning of municipal, industrial, and commercial areas including parking lots, streets, sidewalks, driveways, patios, plazas, work yards and outdoor eating or drinking areas, containing chemicals or detergents, and without prior sweeping, etc;

6. Runoff from material storage areas or uncovered receptacles that contain chemicals, fuels, grease, oil, or other hazardous materials;

7. Discharges of runoff from the washing of toxic materials from paved or unpaved areas;

8. Discharges from pool or fountain water containing chlorine, biocides, or other chemicals; pool filter backwash containing debris and chlorine;

9. Pet waste, yard waste, debris, sediment, etc;

10. Restaurant or food processing facility wastes such as grease, floor mat and trash bin wash water, food waste, etc.

F. Within 12 months of this Order's adoption, develop a restaurant inspection program which shall, at a minimum, address:

1. Oil and grease disposal to verify that these wastes are not poured onto a parking lot, street or adjacent catch basin;

2. Trash bin areas to verify that these areas are clean, the bin lids are closed, the bins are not filled with liquid, and the bins have not been washed out;

3. Parking lot, alley, sidewalk and street areas to verify that floor mats, filters and garbage containers are not washed in those areas and that no wash water is discharged in those areas; and,

4. Parking lot areas to verify that they are cleaned by sweeping, not by hosing down and that the facility operator uses dry methods for spill cleanup; and,

5. Inspection of existing devices designed to separate grease from wastewater (e.g., grease traps or interceptors) to ensure adequate capacity and proper maintenance.

G. Within 18 months of this Order's adoption, each Permittee shall submit a statement (signed by its legal counsel) that the Permittee has obtained all necessary legal authority to comply with this Order through adoption of ordinances and/or municipal code modifications.

VI. ILLICIT CONNECTIONS/ILLEGAL DISCHARGES; LITTER, DEBRIS AND TRASH CONTROL

A. The Permittees shall continue to prohibit illicit connections and illegal discharges to the MS4s through their ordinances. In addition, the Permitees shall continue to implement and improve routine inspection and monitoring and reporting programs for their storm water conveyance systems. If routine inspections or dry weather monitoring indicate illicit connections or illegal discharges, they shall be investigated and eliminated or permitted within 60 days of discovery and identification. The Permittees shall maintain a database that identifies both permitted and status of unpermitted connections resulting from routine inspections and dry weather monitoring. This information shall be updated on an ongoing basis and submitted annually beginning with the 2003-2004 annual report.

B. Reports of spills, leaks, and/or illegal dumping shall be promptly investigated and reported. The Permittees shall immediately report any discharge that, based upon their assessment or as specified below, may endanger human health or the environment, including any unauthorized discharge, to the Executive Officer or his designee (909-782-3238, or by e-mail to: sw@rb8.swrcb.ca.gov) and to the Office of Emergency Services (1-800-852-7550). This reporting should be done by phone or e-mail as soon as the Permittees become aware of the circumstances. A written report of the discharge or incident shall be submitted to the Executive Officer within

ten days. At a minimum, all sewage spills above 1,000 gallons and all reportable quantities of hazardous waste spills as per 40CFR 117 and 302 shall be reported within 24 hours and other spill incidents shall be included in the annual report. The Permittees may propose a reporting program, including reportable incidents and quantities, jointly with other agencies such as the County Health Department for approval by the Executive Officer.

C. The Permittees shall continue to reduce the discharge of pollutants, including trash and debris, from the storm water conveyance systems to the MEP.

D. Within 18 months of this Order's adoption, the Technical Committee shall provide a written assessment of the relative efficiency and cost effectiveness of the available BMPs and the BMPs currently implemented for the control of anthropogenic litter (e.g. street sweeping, catch basin cleaning, deployment of trash receptacles, public education, etc.) and develop recommendations for improving the effectiveness of the currently implemented measures. and implement appropriate BMPs to control trash in urban runoff. The Permittees are required to establish a system to record visual observation information regarding the materials collected (e.g. paper, plastic, wood, glass, vegetative litter, and other), descriptions of its main source(s) (e.g. office, residential, commercial, and industrial waste), and problem areas. The findings of this review, along with supporting field data, shall be included in the annual report for 2003-2004.

E. Within 18 months of this Order's adoption, the Permittees shall review their litter/trash control ordinances to determine the need for revision to improve the effectiveness of these ordinances. The findings of this review shall be included in the annual report for 2003-2004.

VII. SEWAGE SPILLS, INFILTRATION INTO MS4 SYSTEMS FROM LEAKING SANITARY SEWER LINES, SEPTIC SYSTEM FAILURES, AND PORTABLE TOILET DISCHARGES

A. The Executive Officer will request the local sewering agencies to take the lead and develop a unified response guidance, in cooperation with the Principal Permittee. The Principal Permittee shall collaborate with the local sewering agencies to develop a unified response mechanism to respond to sewage spills that may have an impact on receiving water quality. The Permittees shall provide local sanitation districts 24-hour access to the MS4s to address sewage spills. The Permittees shall work cooperatively with the local sewering agencies to determine and control the impact of infiltration from leaking sanitary sewer systems on storm water quality.

B. Within 12 months of this Order's adoption, the Permittees, whose jurisdictions have 50 or more septic tank sub-surface disposal systems in use, shall identify with the appropriate governing agency a mechanism to determine the effect of septic system failures on storm water quality and a mechanism to address such failures.

C. Within 12 months of this Order's adoption, the Principal Permittee shall review the Permittees' current oversight programs for portable toilets to determine the need for revisions.

VIII. NEW DEVELOPMENT (INCLUDING SIGNIFICANT RE-DEVELOPMENT)

A. GENERAL REQUIREMENTS:

1. The Permittee shall continue implementing mechanisms in the DAMP and through the Enforcement/Compliance Strategy to ensure (prior to issuance of local construction permits or other construction approvals) that all construction projects on five acres of land or more that are required to obtain coverage under the State's General Storm Water Permit or the San Jacinto Watershed Storm Water Permit for construction sites have filed a Notice of Intent to be covered by the relevant General Storm Water Permit. Applicants shall be required to provide a copy of the waste discharge identification number (WDID No.) issued by the State or Regional Board. Within 6 months of this Order's adoption, the Permittees shall review the effectiveness of the above mechanisms to determine if revisions are necessary.

2. The Permittees shall continue to require incorporation of BMPs as provided in the New Development Guidelines, Supplement A to the DAMP, and its attachment "Selection and Design of Storm Water Quality Controls." The approval process shall continue to assign long-term maintenance responsibilities and reference the locations of BMPs to be maintained.

3. The Permittees shall review, revise and continue to implement changes in the DAMP, as necessary in order to require construction site dischargers to reduce pollutants in runoff from construction sites during all construction phases. At a minimum, the DAMP shall continue to address:

   a. Pollution prevention measures and public education;
   b. Grading ordinance and other local erosion control requirements;
   c. Verification of coverage under the State's General Permit or the San Jacinto Watershed Storm Water Permit,
   d. Inspection and enforcement of construction site requirements and ordinances;
   e. Procedures for reporting non-compliance;
   f. Implementation of the new development BMPs, or identify watershed or sub-watershed BMPs that new development projects could participate in.

4. The Permittees shall review, revise, and implement changes in the DAMP, as necessary in order to require industrial site dischargers to reduce pollutants in runoff from new and existing industrial sites. At a minimum the DAMP shall address:

   a. Pollution prevention measures and employee education;
   b. Source identification
   c. BMP Implementation

d. Monitoring and inspection of industrial sites
e. Verification of coverage under the State's General Storm Water Permit for Industrial Activities
f. Enforcement of local ordinances and other requirements for Industrial Sites
g. Reporting of non-compliant industrial sites

5. Each Permittee shall continue to reduce the short and long-term impacts on receiving water quality from new developments and re-developments as required in Section B.1, below. In order to reduce pollutants and runoff flows from new developments and re-developments to the MEP, Permittees shall at a minimum:

   a. Review General Plan/CEQA Processes to address storm water issues
   b. Review and modify the Project Approval Process
   c. Conduct Public/Business Education

6. Each Permittee shall provide the Regional Board with the draft amendment or revision when a pertinent General Plan element or the General Plan is noticed for comment in accordance with Government Code Section 65350 et. Seq.

7. The Permittees shall, through conditions of approval, continue to ensure proper maintenance and operation of permanent flood control structures installed in new developments as needed to manage urban runoff water quality. The parties responsible for the maintenance and operation of the facilities, and a funding mechanism for operation and maintenance shall continue to be identified prior to approval of the project.

8. Within 12 months of this Order's adoption, the Permittees shall review their planning procedures and CEQA document preparation processes to ensure that storm water-related issues are properly considered and addressed. If necessary, these processes should be revised to consider and mitigate impacts to storm water quality. These changes may include revising the General Plan, modifying the project approval processes, including a section on urban runoff related water quality issues in the CEQA checklist, and conducting training for project proponents. The findings of this review and the actions taken by the Permittees shall be reported to the Regional Board in the annual report for the corresponding year that the review is completed. The following potential impacts shall be considered during CEQA review:

   a. Potential impact of project construction on storm water runoff.
   b. Potential impact of project's post-construction activity on storm water runoff.
   c. Potential for discharge of pollutants in storm water run-off from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas or loading docks, or other outdoor work areas.
   d. Potential for pollutants in storm water discharge to affect the beneficial uses of the receiving waters.
   e. Potential for significant changes in the flow velocity or volume of storm water runoff to cause environmental harm.

f. Potential for significant increases in erosion of the project site or surrounding areas.

9. Within 24 months of this Order's adoption the Permittees shall review their watershed protection principles and policies in their General Plan or related documents (such as Development Standards, Zoning Codes, Conditions of Approval, Development Project Guidance) to ensure that these principles and policies are properly considered and are incorporated into these documents. The findings of this review and the actions taken by the Permittees shall be reported to the Regional Board within 24 months of this Order's adoption. These principles and policies should include, but not be limited to, the following:

   a. Limit disturbance of natural water bodies and drainage systems; conserve natural areas; protect slopes and channels; minimize impacts from storm water and urban runoff on the biological integrity of natural drainage systems and water bodies;
   b. Minimize changes in hydrology and pollutant loading; require incorporation of controls, including structural and non-structural BMPs, controls to mitigate the projected increases in pollutant loads and flows; ensure that post-development runoff rates and velocities from a site have no significant adverse impact on downstream erosion and stream habitat; minimize the quantity of storm water directed to impermeable surfaces and the MS4s; maximize the percentage of permeable surfaces to allow more percolation of storm water into the ground;
   c. Preserve wetlands, riparian corridors, and buffer zones; establish reasonable limits on the clearing of vegetation from the project site;
   d. Encourage the use of water quality wetlands, biofiltration swales, watershed-scale retrofits, etc.;
   e. Provide for appropriate permanent measures to reduce storm water pollutant loads in storm water from the development site; and
   f. Establish development guidelines for areas particularly susceptible to erosion and sediment loss.

10. Within 12 months of this Order's adoption, the Permittees shall review and, as necessary, revise their current grading/erosion control ordinances in order to reduce erosion caused by new development or significant re-development projects.

11. Within 12 months of this Order's adoption, the Principal Permittee shall submit a proposal to evaluate the effectiveness of BMPs for controlling erosion during new development. Based on the results of this evaluation, one or more BMPs will be identified as (a) County-preferred BMP(s) for erosion control during new development.. The proposed and final BMP selection shall be approved by the Regional Board Executive Officer and the evaluation shall be completed by the end of this permit term. This evaluation may be conducted in coordination with other municipal Permittees in the Region/State.

12. The Permittees shall continue to implement the Municipal Facilities Strategy, New Development Guidelines (Supplement A to the Riverside County Drainage Area

Management Plan) and other appropriate BMPs for public works construction projects.

B. WATER QUALITY MANAGEMENT PLAN (WQMP) FOR URBAN RUNOFF (FOR NEW DEVELOPMENT/SIGNIFICANT REDEVELOPMENT)

1. Within 12 months of this Order's adoption, the Permittees shall review their existing BMPs for new developments and submit for review and approval by the Executive Officer, a WQMP for urban runoff from new developments/significant re-developments for the type of projects listed below:
   a. Significant re-development projects are defined as the addition or creation of 5,000 or more square feet of impervious surface on an already developed site. This includes, but is not limited to, additional buildings and/or structures, extension of existing footprint of a building, construction of parking lots, etc. Where redevelopment results in an increase of less than fifty percent of the impervious surfaces of a previously existing development, and the existing development was not subject to these SUSMPs, the design standards apply only to the addition, and not the entire development;
   b. Home subdivisions of 10 units or more. This includes single family residences, multi-family residence, condominiums, apartments, etc.;
   c. Industrial/Commercial developments of 100,000 square feet or more. This includes non-residential developments such as hospitals, educational institutions (the Permittees may lack authority to regulate some of these developments), recreational facilities, mini-malls, hotels, office buildings, warehouses, light and heavy industrial facilities;
   d. Automotive repair shops (with SIC codes 5013, 5014, 5541, 7532-7534, 7536-7539).
   e. Restaurants where the land area of development is 5,000 square feet or more.
   f. All hillside developments on 10,000 square feet or more. This includes developments located on areas with known erosive soil conditions or where the natural slope is twenty-five percent or more.
   g. Developments of 2,500 square feet of impervious surface or more adjacent to (within 200 feet) or discharging directly into environmentally sensitive areas such as areas designated in the Ocean Plan as areas of special biological significance or waterbodies listed on the CWA Section 303(d) list of impaired waters.
   h. Parking lots of 5,000 square feet or more exposed to storm water. Parking lot is defined as land area or facility for the temporary storage of motor vehicles.

2. The Principal Permittee shall assist the Co-Permittees in development and implementation of regional and sub-regional watershed management BMPs that address runoff from new development and significant re-development, unless the Co-Permittees chose to implement individual site specific BMPs for listed land uses under Item B.1. above. The WQMP shall include BMPs for source control, pollution prevention, and/or structural treatment BMPs. For all structural treatment controls, the WQMP shall identify the responsible party for maintenance of the treatment systems, and a funding source or sources for its operation and maintenance.

3. The goal of the WQMP is to develop and implement practicable programs and policies to ensure that urbanization does not significantly change the hydrology for the site, increase the urban runoff flow rates or velocities or increase the pollutant loads. This goal may be achieved through watershed-based structural treatment controls, in combination with site-specific BMPs. The WQMP shall reflect consideration of the following goals, which may be addressed through on-site- and/or watershed-based BMPs:

   a. The pollutants in post-development runoff shall be reduced using controls that utilize best available technology (BAT) and best conventional technology (BCT).
   b. The discharge of any listed pollutant to an impaired waterbody on the 303(d) list shall not cause or contribute to an exceedance of receiving water quality.

4. Pending revision of the new development requirements (WQMP), the Permittees shall implement their existing requirements for new developments detailed in the New Development Guidelines (Supplement A).

5. If the Executive Officer does not approve the WQMP by February 15, 2004, as meeting the goals proposed in Section VIII.B.3, above, and providing an equivalent or superior degree of treatment as the sized criteria outlined below, structural BMPs shall be required for new development and significant redevelopment[7].

6. Minimum structural BMPs must be sized for all new development and significant redevelopment to comply with one of the following numeric sizing criteria or be deemed by the Principal Permittee to provide equivalent or superior treatment, either on a site basis or watershed basis:

   a. Volume.
   Volume–based BMPs shall be designed to infiltrate, filter, or treat either:

   1) The volume of runoff produced from a 24-hour, 85th percentile storm event, as determined from the local historical rainfall record; or
   2) The volume of annual runoff produced from a 24-hour, 85th percentile rainfall event, determined as the maximized capture storm water volume for the area, from the formula recommended in *Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87 (1998)*; or
   3) The volume of annual runoff based on unit basin storage volume, to achieve 80% or more volume treatment by the method recommended in *California Storm Water Best Management Practices Handbook – Industrial/commercial (1993)*; or

[7] Where new development is defined as projects for which tentative tract or parcel map approval was not received by January 1, 2004, and new redevelopment is defined as projects for which all necessary permits were not issued by January 1, 2004. However, projects that have not commenced grading by the initial expiration date of the tentative tract or parcel map approval shall be deemed a new development project as defined in this section. New development does not include projects receiving map approvals after January 1, 2004 that are proceeding under a common scheme of development that was the subject of a tentative tract or parcel map approval that occurred prior to January 1, 2004.

4) The volume of runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the storm water runoff produced from a 24-hour, 85th percentile storm event;

Or,

b. Flow.

Flow-based BMPs shall be designed to infiltrate, filter, or treat either:

1) The maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour; or
2) The maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity, as determined from the local historical rainfall record, multiplied by a factor of two; or
3) The maximum flow rate of runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile hourly rainfall intensity multiplied by a factor of two.

7. The Permittees may propose equivalent sizing criteria for treatment BMPs or other controls that will achieve greater or substantially similar pollution control benefits. In the absence of approved equivalent sizing criteria, the Permittees shall implement the above stated sizing criteria.

8. If a particular BMP is not technically feasible, other BMPs should be implemented to achieve the same level of compliance or if the cost of BMP implementation greatly outweighs the pollution control benefits, the Permittees may grant a waiver of the numeric sizing criteria. All waivers, along with waiver justification documentation must be reported to the Regional Board in writing within 30 days. The Permittees may propose to establish an urban runoff fund to be used for urban water quality improvement projects within the same watershed that is funded by contributions from developers granted waivers. If the Regional Board determines that waivers are being inappropriately granted, this Order may be reopened to modify these waiver conditions.

9. The obligation to install minimum structural BMPs at new development is met if, for a common scheme of development, BMPs are constructed with the requisite capacity to serve the entire common scheme, even if certain phases of the common scheme may not have BMP capacity located on that phase in accordance with the requirements specified above.

10. <u>Groundwater Protection.</u> Structural infiltration BMPs shall meet the following minimum requirements:

a. Use of structural infiltration treatment BMPs shall not cause or contribute to an exceedance of groundwater water quality objectives.
b. Source control and pollution prevention control BMPs shall be implemented to protect groundwater quality.
c. Structural infiltration treatment BMPs shall not be used in industrial or high vehicular traffic areas (25,000 or greater average daily traffic).
d. Structural infiltration treatment BMPs shall be located at least 500 feet horizontally from water supply wells.
e. Structural infiltration treatment BMPs shall not cause a nuisance, including odor, or vectors or pollution as defined by Water Code Section 13050.

IX. MUNICIPAL INSPECTION PROGRAM

A. Construction Sites

1. Each Permittee shall develop within 12 months of this Order's adoption, an inventory of construction sites within its jurisdiction for which building or grading permits are issued and activities at the site include: soil movement; uncovered storage of materials or wastes, such as dirt, sand, or fertilizer; or exterior mixing of cementaceous products, such as concrete, mortar, or stucco. Sites will be included regardless of whether the construction site is subject to the California Statewide General NPDES Permit for Storm Water Discharges Associated with Construction Activities (General Permit), the San Jacinto Watershed Construction Activities Permit, or other individual NPDES permit. This database shall be updated prior to each rainy season thereafter. This inventory shall be maintained in a computer-based database system and shall include relevant information on site ownership, General Permit WDID # (if any), size, location, etc. Inclusion on a Geographical Information System (GIS) is recommended but not required.

2. Within 12 months of this Order's adoption, to establish priorities for inspection requirements under this Order, the Permittees shall prioritize construction sites within their jurisdiction as a high, medium, or low threat to water quality. Evaluation of construction sites should be based on such factors as soil erosion potential, project size, proximity and sensitivity of receiving waters and other relevant factors. At a minimum, high priority construction sites shall include: sites over 50 acres; and sites over 5 acres that are tributary to CWA section 303(d) waters listed for sediment or turbidity impairments.

3. Each Permittee shall conduct construction site inspections for compliance with its ordinances (grading, Water Quality Management Plans, etc.) and local permits (construction, grading, etc.). Inspections shall include a review of erosion control and BMP implementation plans and an evaluation of the effectiveness and maintenance of the BMPs identified. Inspection frequency will, at a minimum, include the following:

a. During the wet season (i.e., October 1 through May 31 of each year), high priority sites are to be inspected, in their entirety, once a month. Medium priority sites are to be inspected at least twice during the wet season. Low priority sites are to be inspected at least once during the wet season. When BMPs or BMP maintenance is deemed inadequate or out of compliance, an inspection frequency of once every week will be maintained until BMPs and BMP maintenance are brought into compliance. During the 2002-2003 wet season, prior to the development of the inventory database, construction sites must be visited at least once. If a site is deemed out of compliance, an inspection frequency adequate to bring the site into compliance must be maintained.

b. During the dry season (i.e., June 1 through September 30 of each year), construction sites shall be inspected at least once to determine the adequacy of sediment and other pollutant control measures.

c. Information including, at a minimum, inspection dates, inspectors present and the results of the inspection must be maintained in the database identified in Item 1, above, or must be linked to that database. A copy of this database must be provided to the Regional Board with each annual report.

4. Each Permittees shall enforce its ordinances and permits at construction sites as necessary to maintain compliance with this Order. Sanctions for non-compliance must include: monetary penalties, bonding requirements and/or permit denial or revocation.

5. Within two working days of discovery, each Permittee shall provide oral or e-mail notification to the Santa Ana Regional Water Quality Control Board of non-compliant sites within their jurisdiction that are determined to pose a threat to human health or the environment (e.g., sewage spills that could impact water contact recreation, an oil spill that could impact wildlife, a hazardous material spill where residents are evacuated, etc.). Following oral notification, a written report must be submitted to the Santa Ana Regional Water Quality Control Board within 10 days, detailing the nature of the non-compliance, corrective actions taken by the site owner, other relevant information (e.g., past history of non-compliance, environmental damage resulting from the non-compliance, site owner responsiveness) and the type of enforcement that will be carried out by the Permittee. Further, incidences of non-compliance shall be recorded along with the information noted in the written report and the final outcome/enforcement for the incident in the database identified in Items 1 and 3.c., above, or must be linked to these databases.

6. The inspectors responsible for ensuring compliance at construction sites shall be trained in and have an understanding of: federal, state and local water quality laws and regulations as they apply to construction and grading activities; the potential effects of construction and urbanization on water quality; and

implementation and maintenance of erosion control BMPs and sediment control BMPs and the applicable use of both. Each Permittee shall have adequately trained its inspection staff within 12 months of this Order's adoption, and on an annual basis, prior to the rainy season, thereafter. Training programs should be coordinated with the Santa Ana Regional Water Quality Control Board and prior notification of formal classroom training activities shall be provided to Regional Board staff. New hires or transfers that will be performing construction inspections for the Permittees must be trained within one month of starting inspection duties.

7. The Permittees need not inspect facilities already inspected by Regional Board staff if the inspection was conducted within the specified time period.

B. INDUSTRIAL FACILITIES

Within 12 months of this Order's adoption, the Permittees shall review their Compliance Assistance Program and the Enforcement/Compliance Programs to include, but not limited to:

1. Each Permittee shall develop Within 12 months of this Order's adoption, an inventory of industrial facilities within its jurisdiction with business permits or other authorization by Permittees, that have the potential to discharge pollutants to the MS4. Facilities will be listed, regardless of whether the facility is subject to the California Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities (General Industrial Permit), or other individual NPDES permit. This database must be updated on an annual basis. This inventory must be maintained in a computer-based database system and must include relevant information on ownership, SIC code(s), General Industrial Permit WDID # (if any), size, location, etc. Inclusion on a Geographical Information System (GIS) is recommended but not required.

2. The Permittees shall prioritize industrial facilities within their jurisdiction as a high, medium, or low threat to water quality. Evaluation of these facilities should be based on such factors as type of industrial activities (SIC codes), materials or wastes used or stored outside, pollutant discharge potential, facility size, proximity and sensitivity of receiving waters and other relevant factors. At a minimum, a high priority shall be assigned to: facilities subject to section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA); facilities requiring coverage under the General Industrial Permit; and facilities with a high potential for or history of unauthorized, non-storm water discharges.

3. Each Permittee shall conduct industrial facility inspections for compliance with its ordinances and permits. In addition, the Permittees shall confirm the facility's coverage under the State's General Industrial Storm Water Permit (Order No. 97-03-DWQ) has been obtained prior to any local permit issuance (e.g. business license, occupancy permits, etc.,). Inspections shall include a review of material and waste handling and storage practices, pollutant control BMP implementation and maintenance and evidence of past or present

unauthorized, non-storm water discharges. High priority facilities identified in Item 2, above, shall be inspected at least once each year and a report on these inspections shall be submitted within 12 months of this Order's adoption. A report of inspections during subsequent years shall be included in the annual report for that year.

4. Within 12 months of this Order's adoption, high priority sites are to be inspected at least once a year; medium priority sites are to be inspected at least once every two years; and low priority sites are to be inspected at least once per permit cycle. In the event that inappropriate material or waste handling or storage practices are observed, or there is evidence of past or present unauthorized, non-storm water discharges, an inspection frequency adequate to bring the site into compliance must be maintained (at a minimum, once a month). Once compliance is achieved, a minimum inspection frequency of once every four months will be maintained for the next calendar year.

5. Within 36 months of this Order's adoption, each Permittee shall identify the remaining industrial facilities that do not have business permits or other authorization by the Permittees. These facilities shall be added to the database identified in Item 1, above, and shall be prioritized in accordance with the specifications identified in Item 2, above.

6. Information including, at a minimum, inspection dates, inspectors present and the results of the inspection must be maintained in the database identified in Item 1, above, or must be linked to that database. A copy of this database must be provided to the Regional Board with each annual report.

7. Each Permittee shall enforce its ordinances and permits at industrial facilities as necessary to maintain compliance with this Order. Sanctions for non-compliance must include: monetary penalties, bonding requirements and/or permit denial or revocation.

8. Within 24 hours, each Permittee shall provide oral or e-mail notification to the Santa Ana Regional Water Quality Control Board of non-compliant facilities within their jurisdiction that are determined to pose a threat to human health or the environment (e.g., sewage spills that could impact water contact recreation, an oil spill that could impact wildlife, a hazardous material spill where residents are evacuated, etc.). Following oral notification, a written report must be submitted to the Santa Ana Regional Water Quality Control Board within 10 days, detailing the nature of the non-compliance, corrective actions taken by the site owner, other relevant information (e.g., past history of non-compliance, environmental damage resulting from the non-compliance, facility owner responsiveness) and the type of enforcement that will be carried out by the Permittee. Further, incidences of non-compliance shall be recorded along with the information noted in the written report and the final outcome/enforcement for the incident, in the database identified in Item 1, above.

9. The inspectors responsible for ensuring compliance with local agency's NPDES ordinances at industrial facilities shall be trained in and have an understanding of: federal, state and local water quality laws and regulations as they apply to industrial activities; the potential effects of industrial discharges and urbanization on water quality; and implementation and maintenance of pollutant control BMPs. Each Permittee shall have adequately trained their inspection staff within 12 months of this Order's adoption, and on an annual basis thereafter. Training programs should be coordinated with the Santa Ana Regional Water Quality Control Board and prior notification of training shall be provided to Regional Board staff. New hires or transfers that will be performing industrial inspections for the Permittees must be trained within one month of starting inspection duties.

C. COMMERCIAL FACILITIES

Within 12 months of this Order's adoption, the Permittees shall review their Compliance Assistance Program and the Enforcement/Compliance Programs to include, but not limited to:

1. Each Permittee shall develop within 6 months of this Order's adoption, an inventory of the commercial facilities/companies listed below within its jurisdiction. This inventory must be maintained in a computer-based database system and must include relevant information on ownership, size, location, etc. This database must be updated on an annual basis. Inclusion on a Geographical Information System (GIS) is recommended but not required.

   a. Automobile mechanical repair, maintenance, fueling, or cleaning;
   b. Automobile and other vehicle body repair or painting;
   c. Mobile automobile or other vehicle washing (base of operations);
   d. Mobile carpet, drape or furniture cleaning (base of operations);
   e. Mobile high pressure or steam cleaning (base of operations);
   f. Painting and coating;
   g. Nurseries and greenhouses;
   h. Landscape and hardscape installation (base of operations);
   i. Pool, lake and fountain cleaning (base of operations); and,
   j. Other commercial sites/sources that the Permittee determines may contribute a significant pollutant load to the MS4.

2. To establish priorities for inspection requirements under this Order, the Permittees shall prioritize commercial facilities/companies within their jurisdiction as a high, medium, or low threat to water quality based on such factors as the type, magnitude, and location of the commercial activity, potential for discharge of pollutants to the MS4, and history of unauthorized non-storm water discharges.

3. Each Permittee shall conduct commercial facility inspections for compliance with its ordinances and permits. Inspections shall include a review of material

and waste handling and storage practices, pollutant control BMP implementation and maintenance and evidence of past or present unauthorized, non-storm water discharges.

4. Within 12 months of this Order's adoption, each Permittee shall establish inspection frequencies and priorities as determined by the threat to water quality prioritization described in Item 2., above. In the event that inappropriate material or waste handling or storage practices are observed, or there is evidence of past or present unauthorized, non-storm water discharges, an inspection frequency adequate to bring the site into compliance must be maintained.

5. Within 24 months of this Order's adoption, all high priority sites shall be inspected at least once.

6. Information including, at a minimum, inspection dates, inspectors present and the results of the inspection must be maintained in the database identified in Item 1, above, or must be linked to that database. A copy of this database must be provided to the Regional Board with each annual report.

7. Each Permittee shall enforce its ordinances and permits at commercial facilities. Sanctions for non-compliance must include: monetary penalties, bonding requirements and/or permit denial or revocation.

8. Within 2 working days, each Permittee shall provide oral or e-mail notification to the Santa Ana Regional Water Quality Control Board of non-compliant facilities within their jurisdiction, that are determined to pose a threat to human health or the environment (e.g., sewage spills that could impact water contact recreation, an oil spill that could impact wildlife, a hazardous material spill where residents are evacuated, etc.). Following oral notification, a written report must be submitted to the Santa Ana Regional Water Quality Control Board within 10 days. All written reports shall detail the nature of the non-compliance, identify corrective actions taken by the site owner, and note other relevant information (e.g., past history of non-compliance, environmental damage resulting from the non-compliance, facility owner responsiveness) and the type of enforcement that will be carried out by the Permittee. Further, incidences of non-compliance shall be recorded along with the information noted in the written report and the final outcome/enforcement for the incident in the database identified in Item 1, above.

9. The inspectors responsible for ensuring compliance at commercial facilities shall be trained in and have an understanding of: federal, state and local water quality laws and regulations as they apply to commercial activities; the potential effects of commercial discharge and urbanization on water quality; and implementation and maintenance of pollutant control BMPs. Each Permittee shall have adequately trained their inspection staff within 12 months of this Order's adoption, and on an annual basis thereafter. Training programs should be coordinated with the Santa Ana Regional Water Quality Control Board and

prior notification of formal classroom training shall be provided to Regional Board staff. New hires or transfers that will be performing commercial inspections for the Permittees must be trained within one month of starting inspection duties.

10. The Permittees need not inspect facilities already inspected by Regional Board staff if the inspection was conducted within the specified time period.

X. EDUCATION AND OUTREACH

A. The storm water regulations require public participation in the storm water management program development and implementation. As such the Permittees shall solicit and consider comments received from the public and submit copies of the comments to the Executive Officer of the Regional Board with the annual reports due on November 30th, beginning with the report due on November 30, 2003. In response to the public comments, the Permittees may modify reports, plans, or schedules prior to submittal to the Executive Officer.

B. The Permittees shall continue to implement the public education efforts already underway and shall implement the most effective elements of the public and business education strategy contained in the Storm Water/Clean Water Protection Program. Within 6 months of this Order's adoption, the Permittees shall complete a public awareness survey to determine the effectiveness of the current public and business education strategy and provide a future action plan.

C. The Permittees shall continue to participate in a joint outreach with other programs including, but not limited to, the State of California Storm Water Quality Task Force, Caltrans, and other municipal storm water programs to ensure that a consistent message on storm water pollution prevention is disseminated to the public. The Permittees shall continue to sponsor or staff a storm water table or booth at community, regional, and/or countywide events to distribute public education materials to the public. Each Permittee shall participate in at least one event per year.

D. Within 12 months of this Order's adoption, the Permittees shall establish a Public Education Committee to provide oversight and guidance for the implementation of the public education program. The Public Education Committee shall meet at least twice per year. The Public Education Committee shall make recommendations for changes to the public and business education program. The goal of the public and business education program shall be to target 100% of the residents, including businesses, commercial and industrial establishments and to measurably increase the knowledge and change the behavior of the targeted groups. Through use of local print, radio and television, the Permittees must ensure that the public and business education program makes a minimum of 5 million impressions per year.

E. Within 12 months of this Order's adoption, the Public Education Committee shall propose a study for measuring changes in knowledge and behavior as a result of the

education program. Upon approval by the Regional Board Executive Officer, the study shall be completed by the end of the permit cycle.

F. Within 6 months of this Order's adoption, the Public Education Committee shall develop BMP guidance for restaurants, automotive service centers, and gasoline service stations, and the discharges listed in Section II.C. of this Order, for the local agency inspectors to distribute to these facilities during inspections. Further, for restaurant, automotive service centers, and gasoline service station corporate chains, information is to be developed that will be provided to corporate environmental managers during outreach visits that will take place twice during the permit term.

G. Within 6 months of this Order's adoption, the Permittees shall develop public education materials to encourage the public to report (including a hotline line number to report) illegal dumping from residential, industrial, construction and commercial sites into public streets, storm drains and other waterbodies, clogged storm drains, faded or missing catch basin stencils and general storm water and BMP information. This hotline and website shall continue to be included in the public and business education program and shall be listed in the governmental pages of all major regional phone books.

H. Within 18 months of this Order's adoption, the Permittees shall develop BMP guidance for the control of those potentially polluting activities not otherwise regulated by any agency including guidelines for the household use of fertilizers, pesticides, and other chemicals, guidance for mobile vehicle maintenance, carpet cleaners, commercial landscape maintenance, and pavement cutting. Additionally, BMP guidance shall be developed for categories of discharges listed in Section II.C, identified to be significant sources of pollutants unless appropriate BMPs are implemented. These guidance documents shall be distributed to the public, trade associations, etc., through participation in community events, trade association meetings, and/or mail.

I. Within 6 months of this Order's adoption, the Permittees shall conduct an evaluation to determine the best method of establishing a mechanism(s) for providing educational and General Industrial Permit materials to businesses within their jurisdiction. This mechanism(s) for distributing educational materials to businesses shall be implemented within six months after the above date.

XI. MUNICIPAL FACILITIES PROGRAMS AND ACTIVITIES

A. Successful implementation of the provisions and limitations in this Order will require the cooperation of all the public agency organizations within Riverside County having programs/activities that have an impact on storm water quality (e.g., Fire Department, Department of Environmental Health, Planning Department, Transportation Department, Parks and Recreation Department, Building and Safety, and Code Enforcement, etc.). As such, these organizations are expected to actively participate in implementing this area-wide storm water program. The Permittees shall be responsible for involving the public agency organizations in their storm water program.

B. Within 12 months of this Order's adoption, the Permittees, in coordination with the Riverside County Fire Chiefs Association, or equivalent organization, shall develop a list of appropriate BMPs to be implemented to reduce pollutants from fire training activities, fire hydrant/sprinkler testing or flushing, non-emergency fire fighting, and BMPs feasible for emergency fire fighting flows.

C. Each Permittee shall continue to implement the recommendations in the Municipal Facilities Strategy to ensure that public agency facilities and activities do not cause or contribute to a pollution or nuisance in receiving waters. as defined in Section 13050 of the Water Code. By August 1 of each year, the Permittees shall review their activities and facilities to determine the need for revisions to the Municipal Facilities Strategy. The annual report shall include the findings of this review and a schedule for needed revisions. Revisions should consider a pollution prevention strategy to ensure that the public agency facilities and/or activities including those that are currently not required to obtain coverage under the State's General Storm Water Permits or San Jacinto Watershed Construction Activities Storm Water Permit are not sources of pollutants into the waters of the United States. In addition, the Permittees shall evaluate the applicability of the Municipal Facilities Strategy to municipal maintenance contracts, contracts for field maintenance operations, and leases.

D. Within 6 months of this Order's adoption, the Permittees shall complete an assessment of their flood control facilities to evaluate opportunities to configure and/or to reconfigure channel segments to function as pollution control devices and to optimize beneficial uses. These modifications may include in-channel sediment basins, bank stabilization, water treatment wetlands, etc. This shall be reported in the 2002-2003 annual report.

E. Within 6 months of this Order's adoption, the Principal Permittee shall develop and distribute model maintenance procedures for public agency activities and drainage facilities such as street sweeping, catch basin stenciling, drainage facility inspection, cleaning, and maintenance. Each Permittee shall expand existing programs to inspect, clean, and maintain at least 80% of its open channel drainage facilities, retention/detention basins, and wetlands created for storm water treatment on an annual basis, with 100% of the facilities included in a two-year period, using the model maintenance procedures developed by the Principal Permittee. This shall be included in the 2002-2003 annual report.

F. Within 24 months of this Order's adoption, the Permittees shall review, document, and submit for approval by the Executive Officer, a program for cleaning out open channel drainage facilities, retention/detention basins, and wetlands created for storm water treatment, prioritized on such factors as distance to receiving water, receiving water beneficial uses and impairments of beneficial uses, historical pollutant types and loads from past inspections/cleanings, and the presence of downstream regional facilities that would remove the types of pollutants found in the drainage facilities. Using these factors, the Permittees shall propose revised clean out schedules and frequency for the specified drainage facilities during the wet and dry season. The Permittees should be prepared to implement the approved clean out program beginning with the 2004-2005 storm season.

G. Contractor training requirements shall be included in new contracts and contracts that come up for renewal. This shall be reported in the 2002-2003 annual report.

H. Within 6 months of this Order's adoption, the Principal Permittee shall develop and distribute BMP guidance for public agency and contract field operations and maintenance staff to provide guidance in appropriate pollution control measures, how to respond to spills and reports of illegal discharges, etc. This shall be reported in the 2002-2003 annual report.

I. At least on an annual basis, each Permittee shall provide training to the public agency staff and to contract field operations staff on fertilizer and pesticide management, model maintenance procedures, implementation of environmental performance reporting program and other pollution control measures. Each Permittee shall attend at least three of these training sessions during the five-year term of this permit (from 2002 to 2007).

J. Each Permittee shall identify areas that are not subject to street sweeping due to lack of continuous curb and gutter, and evaluate their potential for impacting storm water quality. Appropriate BMPs shall be implemented where significant water quality impact is identified. This shall be reported in the 2003 annual report.

K. Each Permittee shall clean those open channel drainage facilities and retention/ detention basins where the inspection reveals that the sediment/storage volume is 25% full, or where there is evidence of illegal discharge or if accumulated sediment or debris impairs the hydraulic capacity of the facility. The inspection and maintenance frequency for all portions of the drainage facilities shall be evaluated annually to determine the need for increasing the inspection and maintenance frequency. This information shall be included in the annual report.

L. Each Permittee shall annually evaluate their street/road sweeping frequency based on land use and historical information to determine the need to revise their sweeping frequency. This information shall be provided in the annual report.

M. The Permittees shall maintain an updated site-specific storm water pollution prevention plan for their facilities and activities.

N. The San Bernardino County Flood Control District and RCFC&WCD, in cooperation with local municipalities, are coordinating an effort to construct flood control facilities in the Chino-Corona Agricultural Preserve area. A status report of this project shall be provided in the annual report.

XII. MUNICIPAL CONSTRUCTION PROJECTS/ACTIVITIES

A. This Order authorizes the discharge of storm water runoff from construction projects that may result in land disturbance of five (5) acres or more (or less than five acres, if it is part of a larger common plan of development or sale which is five acres or more) that are under ownership and/or direct responsibility of the Permittees.

B. Within 12 months of this Order's adoption, or as specified in the latest version of the State General Stormwater Construction Permit, the permittees shall comply with the requirements for municipal construction projects that may result in land disturbance greater than one acre.

C. Prior to commencement of construction activities, the Permittees shall notify the Executive Officer of the Regional Board of the proposed construction project. Upon completion of the construction project, the Executive Officer shall be notified of the completion of the project.

D. The Permittees shall develop and implement a storm water pollution prevention plan (SWPPP) and a monitoring and reporting program that is specific for the construction project prior to the commencement of construction activities. The SWPPP shall be kept at the construction site and released to the public and/or Regional Board staff upon request.

E. The SWPPP and the monitoring and reporting program for the construction projects shall be consistent with the requirements of the latest version of the State's General Construction Activity Storm Water Permit or the San Jacinto Watershed Storm Water Permit, as applicable.

F. The Permittees shall give advance notice to the Executive Officer of the Regional Board of planned changes in the construction activity, which may result in non-compliance with the latest version of the State's General Construction Activity Storm Water Permit or the San Jacinto Watershed Storm Water Permit, as applicable.

XIII. PROGRAM MANAGEMENT/DAMP REVIEW

A. By November 30, 2003, the Santa Ana Region Drainage Area Management Plan (SAR DAMP) shall be revised to incorporate the requirements of this Order and shall be submitted to the Executive Officer for approval (see also Section XV.5). Permittees shall implement all elements of the approved DAMP. Where the dates in the DAMP are different than those of this Order, the dates in this Order shall prevail.

B. At a minimum, the first annual review after adoption of this Order shall include:

1. A description of additional formal training needs for municipal employees.

2. A description of the need for additional coordination meeting/training for the designated NPDES inspectors.

C. By August 1 of each year, beginning in 2004, the Permittees shall evaluate the DAMP to determine the need for revisions. The Permittees shall modify the DAMP, as necessary, or at the direction of the Regional Board Executive Officer to incorporate additional provisions. Such provisions may include regional and watershed-specific requirements and/or waste load allocations developed and approved pursuant to the

TMDL process for impaired waterbodies. Proposed revisions to the DAMP shall be submitted to the Executive Officer of the Regional Board for review and approval. Revisions to the DAMP approved by the Executive Officer shall be implemented in a timely manner. The annual report shall include the findings of this review and a schedule for needed revisions.

D. The Technical Committee shall continue to meet at least 10 times a year to discuss issues related to permit implementation and regional and statewide issues. Each Permittee designated representative or a designated alternate should attend not less than 8 out of 10 meetings.

E. The Permittees shall evaluate the need for a residential program to prevent or reduce pollutants in runoff from all residential land use and activities. Permittees shall consider the effectiveness of current pollution prevention efforts, threat to water quality, BMP implementation and enforcement of local ordinances in residential areas and activities.

XIV. MONITORING AND REPORTING PROGRAM

The Permittees shall comply with Monitoring and Reporting Program No. R8-2002-0011, located in Appendix 3, and any revisions thereto, which are hereby made a part of this Order. The Executive Officer is hereby authorized to revise the Monitoring and Reporting Program in a manner consistent with this Order to allow the Permittees to participate in regional, statewide, national or other monitoring and reporting programs in lieu of or in addition to Monitoring and Reporting Program No. R8-2002-0011 located in Appendix 3. In addition, significant completion and implementation dates required by this Order are outlined in Section V of the Monitoring and Reporting Program (Appendix 3).

XV. PROVISIONS

A. GENERAL

1. Reports submitted by the Permittees as per the requirements in this Order for the approval of the Executive Officer shall be publicly noticed and made available on the Regional Board's website, or through other means, for public review and comments. The Executive Officer shall consider all comments received prior to approval of the reports. Unresolved issues shall be scheduled for a public hearing at a Regional Board meeting prior to approval by the Executive Officer.

2. The purpose of this Order is to require the implementation of BMPs to reduce, to the MEP, the discharge of pollutants from the MS4 in order to support reasonable further progress towards attainment of water quality objectives.

3. Permittees shall demonstrate compliance with all the requirements in this Order and shall implement their DAMP and modifications, revisions, or amendments thereto, which are developed pursuant to this Order or determined by the Permittee to be necessary to meet the requirements of this Order and approved by the

Executive Officer. The Drainage Area Management Plan and amendments thereto are hereby made an enforceable part of this Order.

4. Each Permittee shall continue to implement necessary controls, in addition to those specific controls and actions required by (1) the terms of this Order and (2) the DAMP, to reduce the discharge of pollutants in storm water to the MEP.

5. Changes to plans or programs described in this permit shall be completed by the Permittees no later than 6 months after this permit goes into effect, unless otherwise specified.

6. Certain BMPs implemented or required by the Permittees for urban runoff management may create habitat for vectors (e.g., mosquitoes and rodents) if not properly designed and maintained. Close collaboration and cooperative effort between the Permittees and local vector control agencies and the State Department of Health Services during the development and implementation of urban runoff management programs are necessary to minimize potential vector habitat and public health impacts resulting from vector breeding. Nothing in this permit is intended to prohibit inspection or abatement of vectors by the State or local vector control agencies in accordance with the respective Health and Safety Code.

7. The Permittees shall report to the Executive Officer of the Regional Board:

   a. Any enforcement actions and known discharges of storm or wastewater to facilities owned or operated by the Permittees which may impair domestic water supply sources (e.g., discharges due to a levee break, illegal discharges to the street, etc.) or which may have an impact on human health or the environment; if the discharge is to Canyon Lake or any tributary to Canyon Lake, Elsinore Valley Municipal Water District shall also be notified immediately;
   b. Industrial and/or construction facilities found not to be in compliance with the State's General Storm Water Permits, or San Jacinto Watershed Construction Activities Permit, or where the activities may be contributing pollutants to the waters of the United States; and,
   c. Suspected or reported activities on federal, state, or other entity's land or facilities, where the Permittees do not have any jurisdiction, and where the suspected or reported activities may be contributing pollutants to waters of the United States.

8. The Permittees shall not issue occupancy permits unless the applicant is informed of his obligation under the State's General Industrial Activities Storm Water Permit. The Permittees shall not issue grading or building permits to developments that may result in land disturbance of five acres or more (or less than five acres, if it is part of a larger common plan of development or sale which is five acres or more) unless the applicant shows proof of coverage under the State's General Construction Activity Storm Water Permit or the San Jacinto Watershed

Construction Activities Storm Water Permit. The proof of coverage may include a letter from the Regional Board office, a copy of the Notice of Intent, etc.

9. The Permittees shall coordinate the activities of the various departments/sections within each Permittee's jurisdiction to promote consistent implementation of storm water regulations.

10. The permit application and special NPDES program requirements are contained in 40 CFR 122.21 (a), (b), (d) (2), (f), and (p), 122.41 (a), (b), (c), (d), (e), (f), (g), (h), (i), (j), (k), and (l); and 122.42 (c) are incorporated into this Order by reference.

11. The Permittees must comply with all terms, requirements, and conditions of this Order. Any violation of this Order constitutes a violation of the CWA, its regulations and the California Water Code, and is grounds for enforcement action, Order termination, Order revocation and reissuance, denial of an application for reissuance, Order revisions, or a combination thereof.

12. Permittees shall continue to take reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.

13. Regional Board staff, USEPA, and other authorized representatives shall be allowed to:

    a. Inspect Permittee records associated with compliance of this Order.
    b. Access and to copying of records that are kept under the conditions of this Order.
    c. Photograph, sample, and monitor for the purpose of assuring compliance with this Order, or as otherwise authorized by the CWA and/or the California Water Code.
    d. Review the Permittee's program and require modification to their program to comply with the requirements of this Order.
    e. Request copies of data, monitoring reports, and sampling data and copies of the Permittee's conclusions and evaluations of the data.

B. FISCAL RESOURCES

The Permittees shall prepare and submit a unified fiscal analysis report appropriate for implementation of the requirements of this Order to the Executive Officer of the Regional Board. The fiscal analysis report shall be submitted no later than November 30, of each year and shall at a minimum include the following:

1. Each Permittee's expenditures for the previous fiscal year;
2. Each Permittee's budget for the current fiscal year;
3. A description of the source of funds;

XVI. PERMIT EXPIRATION AND RENEWAL

A. This Order expires on May 31, 2007, and the Permittees must file a Report of Waste Discharge (permit application) no later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements. The Report of Waste Discharge shall, at a minimum, include the following:

1. Any revisions to the DAMP including, but not limited to, activities the Permittees propose to undertake during the next permit term, goals and objectives of such activities, an evaluation of the need for additional source control and/or structural BMPs, proposed pilot studies, etc.;

2. Changes in land use and/or population including map updates; and

3. Significant changes to the storm drain systems, outfalls, detention or retention basins or dams, and other controls, including map updates of the storm drain systems.

B. This Order may be modified, revoked or reissued prior to its expiration date for the following reasons:

1. To address significant changes in conditions identified in the technical reports required by the Regional Board which were unknown at the time of the issuance of this Order;

2. To incorporate applicable requirements of statewide water quality control plans and policies adopted by the State Board or amendments to the Basin Plan approved by the Regional Board, the State Board, and, if necessary, by the Office of Administrative Law; or

3. To comply with applicable requirements, guidelines, or regulations issued or approved under the CWA, if the requirements, guidelines, or regulations contain different conditions or additional requirements than those included in this Order.

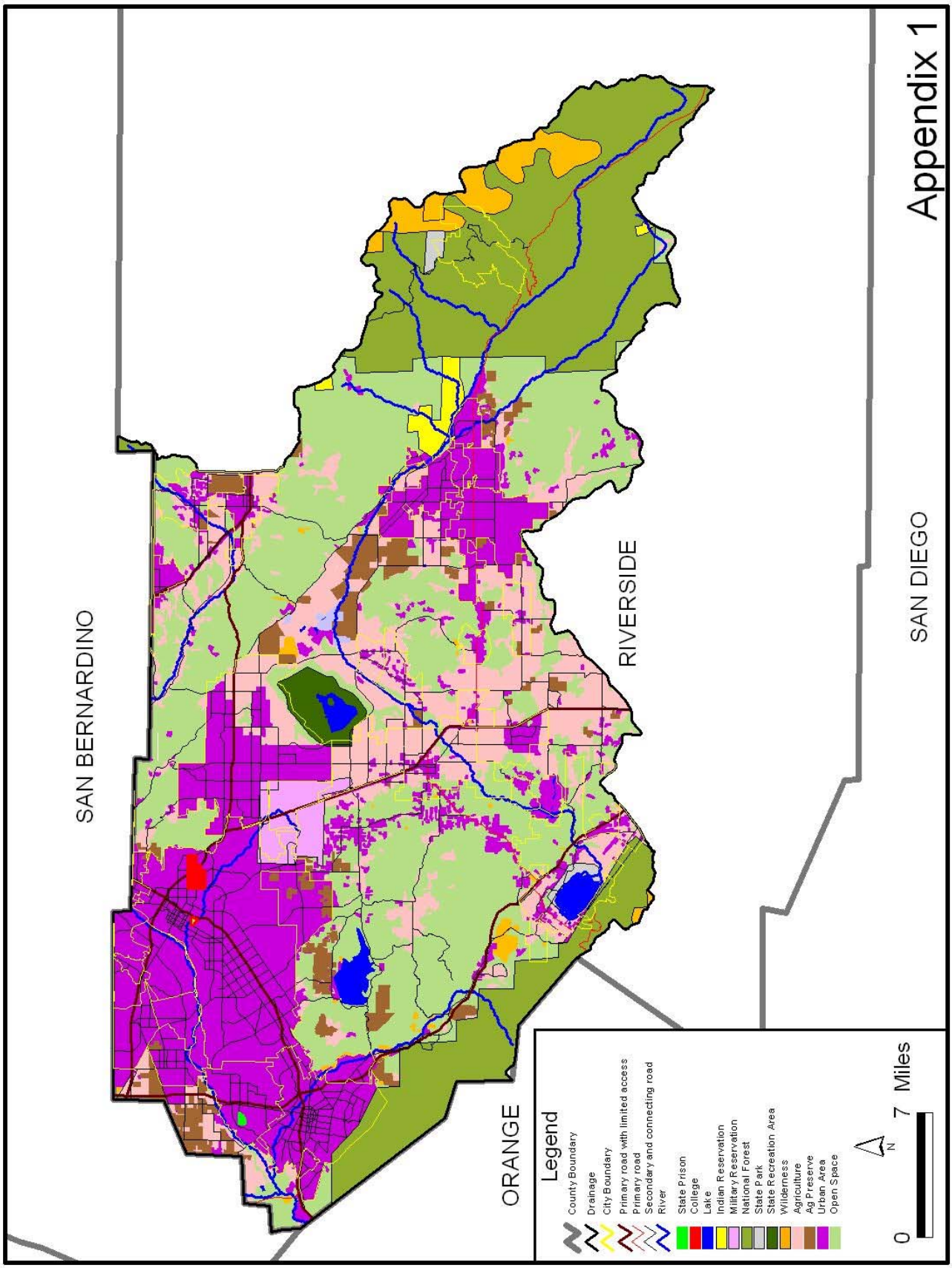
4. To incorporate new or revised program elements and compliance schedule(s) necessary to comply with this Order.

C. This Order shall serve as a NPDES permit pursuant to Section 402 (p) of the CWA, or amendments thereto, and shall become effective ten days after the date of its adoption provided the Regional Administrator of the USEPA has no objections. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

D. Order No. 96-30 is hereby rescinded.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on **July 19, 2002.**

Gerard J. Thibeault
Executive Officer


Appendix 1
SAN BERNARDINO
RIVERSIDE
SAN DIEGO
ORANGE
Legend
County Boundary
Drainage
City Boundary
Primary road with limited access
Primary road
Secondary and connecting road
River
State Prison
College
Lake
Indian Reservation
Military Reservation
National Forest
State Park
State Recreation Area
Wilderness
Agriculture
Ag Preserve
Urban Area
Open Space
N
0
7
Miles

Appendix 2

OTHER ENTITIES THAT MAY DISCHARGE POLLUTANTS TO STORMWATER CONVEYANCE SYSTEMS

Government Agencies

Department of the Air Force,
March Air Force Base – Special Districts
State Parks
U.S. Army Corps of Engineers
CalTrans
Department of Corrections
U.S. Forest Service

Hospitals

Corona Community Hospital
Kaiser Foundation Hospital – Fontana, Murrieta, Riverside
Riverside Community Hospital
Riverside General Hospital

Railroads

AT&SF Railway Company
Southern Pacific Railroad

Water Districts

Eastern Municipal Water District
Elsinore Valley Municipal Water District
Metropolitan Water District
Western Municipal Water District

School Districts

Alvord Unified School District
Corona – Norco Unified School District
Hemet Unified School District
Lake Elsinore Unified School District
Menifee Union School District
Moreno Valley Unified School District
Nuview Union School District
Perris Elementary School District
Perris Union High School District
Riverside Unified School District
Romoland School District
San Jacinto Unified School District
Val Verde School District

Universities and Colleges

Mt. San Jacinto College
Riverside Community College
University of California Riverside

APPENDIX 3

MONITORING AND REPORTING PROGRAM

ORDER NO. R8-2002-0011

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APPENDIX 4

GLOSSARY

ORDER NO. R8-2002-0011

(May 16, 2002 Draft)
California Regional Water Quality Control Board
Santa Ana Region

Monitoring and Reporting Program No. R8-2002-0011
NPDES No. CAS618033

for
Riverside County Flood Control and Water Conservation District,
The County of Riverside, and The Incorporated Cities of Riverside County
Within the Santa Ana Region
Area Wide Urban Storm Water Runoff

I. GENERAL

A. Revisions of the monitoring and reporting program are appropriate to ensure that the Permittees are in compliance with requirements and provisions contained in this Order. Revisions may be made under the direction of the Executive Officer at any time during the term, and may include a reduction or increase in the number of parameters to be monitored, the frequency of monitoring, or the number and size of samples collected.

B. The Executive Officer is authorized to allow the Permittees to participate in statewide, national, or other monitoring programs in lieu of this monitoring program.

C. All sample collection, handling, storage, and analysis shall be in accordance with 40 CFR Part 136 or other methods approved by the Executive Officer.

D. The Permittees are authorized to complement their monitoring data with data from other monitoring sources, provided the monitoring conditions and sources are similar to those in the Santa Ana Watershed.

E. The Principal Permittee has been monitoring storm water and receiving waters since the first permit term. It is recognized that some of the objectives noted in Section II, below, may not have been attainable during the previous permit terms. It is hoped that continuous monitoring for long term shall help to accomplish these objectives. The Regional Board authorizes the Executive Officer to evaluate and determine adequate progress toward meeting each objective.

F. This Order references three components of the monitoring program: (1) The existing monitoring program shall continue to be implemented until the integrated watershed monitoring program is approved; (2) An integrated watershed monitoring program is to be developed under this Order to identify data gaps and to attain the objectives specified in Section II, below and (3) Other regional monitoring efforts where the Permittees participate or make monetary contributions.

G. The Permittees shall develop and submit a consolidated monitoring program for approval by the Executive Officer of the Regional Board. The consolidated

program for water quality monitoring should be capable of attaining the objectives mentioned below.

II. OBJECTIVES

The overall goal of the monitoring program is to develop and support an effective watershed management program. The following are the major objectives:

A. To identify those waters, which, without additional action to control pollution from urban storm water discharges, cannot reasonably be expected to attain or maintain applicable water quality standards required to sustain the beneficial uses in the Basin Plan (TMDL monitoring)

B. To develop and support an effective municipal urban runoff and non-point source control program.

C. To identify water quality problems, trends, Characterize pollutants associated with urban storm water discharges, and to assess the influence of urban land uses on water quality and the beneficial uses of receiving waters.

D. To identify other sources of pollutants in storm water runoff to the maximum extent possible including, but not limited to, atmospheric deposition and contaminated sediments.

E. To identify and prohibit illicit connections.

F. To verify and to control illegal discharges.

G. To evaluate the effectiveness of existing municipal storm water quality management programs, including an estimate of pollutant reductions achieved by the structural and nonstructural BMPs implemented by the Permittees.

H. To conduct monitoring in cooperation with San Bernardino County for investigation of bacteriological impairments in the upper Santa Ana River due to urban runoff.

I. To evaluate costs and benefits of proposed municipal storm water quality control programs to the Permittees and other stakeholders including the public.

III. MONITORING PROGRAM REQUIREMENTS

A. <u>TMDL/303(d) Listed Waterbody Monitoring</u>: The Permittees shall continue to participate in the TMDL and Southern California Cooperative Storm Water Research/Monitoring programs. In addition, strategies must be revised/developed to evaluate the impacts of storm water or non-storm water

runoff on identified impairments within the Santa Ana River watershed and other tributary 303(d) listed waterbodies. Since the 303(d) listing is dynamic, with new waterbodies and new impairments being identified over time, the Permittees shall revise their monitoring plan to incorporate new information, as it becomes available.

B. The Permittees shall revise, within one year of adoption of this Order, their Water Quality Monitoring Program to include, at a minimum, the following monitoring components or their equivalence:

1. Mass Emissions Monitoring:

   a. Monitor mass emissions in order to: (a) estimate the total mass emissions from the MS4; (b) assess trends in mass emissions over time; and (c) to determine if the MS4 is contributing to exceedances of water quality objectives or beneficial uses, by comparing results to the California Toxics Rule (CTR), Basin Plan, Ocean Plan and/or other relevant standards.

   b. Representative samples from the first storm event and two more storm events shall be collected during the rainy season. A minimum of three dry-weather samples shall also be collected. Samples from the first rain event each year shall be analyzed for the entire suite of priority pollutants. All samples must be analyzed for metals, pH, TSS, TOC, pesticides/herbicides, and constituents that are known to have contributed to impairment of local receiving waters. Dry weather samples should also include an analysis for oil and grease. Sediments associated with mass emissions should be analyzed for constituents of concern identified in the water analyses.

2. Microbial Monitoring: The Santa Ana River, Reach 3 and its tributaries shall be monitored for bacteriological constituents. This monitoring program may be developed in collaboration with the municipal Permittees in San Bernardino and Orange Counties.

3. Water Column Toxicity Monitoring: Analyses for toxicity to freshwater species shall be performed on mass emissions samples to determine the impacts of storm water and non-storm water runoff on toxicity of receiving waters. *Ceriodaphnia dubia* and *Strongylocentrotus purpuratus* fertilization shall be used to evaluate toxicity on the sample from the first rain event, plus one other wet weather sample and two dry weather samples. In addition, criteria shall be identified which will trigger the initiation of Toxicity Identification Evaluations (TIEs) and Toxicity Reduction Evaluations (TREs).

4. Reconnaissance: The Permittees shall develop new reconnaissance strategies to identify and prohibit illicit discharges. Where possible, the use of GIS to identify geographic areas with a high density of industries associated with gross pollution (e.g. electroplating industries, auto dismantlers) and/or locations subject to maximum sediment loss (e.g. new development) may be used to determine areas for intensive monitoring efforts. Additionally, the Permittees shall coordinate with the Regional Board to develop a comprehensive database

to include all enforcement actions for storm water violations and unauthorized, non-storm water discharges, that can then be used to more effectively target reconnaissance efforts.

5. Land Use Correlations: The Permittees shall develop and implement strategies for determining the effects of land use on the quality of receiving waters. While it is recognized that a wide range of land uses exist across the region and within each subwatershed, one relationship that may be easily determined is the impact of development on sediment loading within receiving waters, since developed areas contribute relatively little sediment loading compared to areas under construction. Consequently, the Permittees shall, at a minimum, analyze the impacts of increasing development and the conversion of agricultural land to the sediment loading of Canyon Lake, Lake Elsinore, and the Santa Ana River (Reaches 3 and 4).
6. Sources of Data: Where possible and applicable, data shall be obtained from monitoring efforts of other public or private agencies/entities (e.g., Caltrans).

C. Within one year of adoption of this Order, the Permittees shall develop and submit for approval of the Executive Officer, their revised Water Quality Monitoring Program, which should yield an integrated watershed-monitoring approach capable, to the maximum extent possible, of achieving the above-stated goals. In order to minimize cost and maximize benefits, it is highly recommended that this program be developed in cooperation with the SCCRWP, the Riverside County Environmental Health Department, and/or other public or private agencies/entities. The development and implementation of the monitoring program shall be in accordance with the time schedules prescribed by the Executive Officer. At a minimum, the program shall include the following and any requirements developed by the State Board in accordance with Water Code Section 13383.5:

1. Uniform guidelines for quality control, quality assurance, data collection and data analysis.

2. A mechanism for the collection, analysis and interpretation of existing data from local, regional or national monitoring programs. These data sources may be utilized to characterize different storm water sources; to determine pollutant generation, transport and fate; to develop a relationship between land use, development size, storm size and the event mean concentration of pollutants; to determine spatial and temporal variances in storm water quality and seasonal and other bias in the collected data; and to identify any unique features of the Santa Ana Watershed. The Permittees are encouraged to use data from similar studies, if available.

3. A description of the monitoring program including:

   a. The number of monitoring stations;

b. Monitoring locations within flood control channels, in the rivers, lakes and their tributaries, major outfalls, and other receiving waters;
c. Environmental indicators (e.g., ecosystem, biological, habitat, chemical, sediment, stream health, etc.) chosen for monitoring;
d. Total number of samples to be collected from each station, frequency of sampling during wet and dry weather, short duration or long duration storm events, type of samples (grab, 24-hour composite, etc.), justification for composite versus discrete sampling, type of sampling equipment, quality assurance/quality control procedures followed during sampling and analysis, analysis protocols to be followed (including sample preparation and maximum reporting limits), and identity qualifications of laboratories performing analyses;
e. A mechanism for analyzing the collected data and interpreting the results including an evaluation of the effectiveness of the management practices, and need for any refinement of the management practices.
f. Parameters selected for field screening and for laboratory work; and
g. A description of the responsibilities of all the participants in this program including cost sharing.

IV. REPORTING

A. All progress reports and proposed strategies and plans required by this Order shall be signed by the Principal Permittee, and copies shall be submitted to the Executive Officer of the Regional Board under penalty of perjury.

B. The Permittees shall submit an **ANNUAL PROGRESS REPORT** to the Executive Officer of the Regional Board and to the Regional Administrator of the U.S. EPA, Region 9, no later than November 30th, of each year. This progress report may be submitted in a mutually agreeable electronic format. At a minimum, annual progress report shall include the following:

1. A. review of the status of program implementation and compliance (or non-compliance) with the schedules contained in this order;

2. An assessment of the effectiveness of control measures established under the illicit discharge elimination program and the Drainage Area Management Plan. The effectiveness may be measured in terms of how successful the program has been in eliminating illicit connections/illegal discharges and reducing pollutant loads in storm water discharges;

3. An assessment of any storm water management program modifications made to comply with Clean Water Act requirements to reduce the discharge of pollutants to the maximum extent practicable;

4. A summary, evaluation, and discussion of monitoring results from the previous year and any changes to the monitoring program for the following year;

5. A fiscal analysis progress report as described in Section XV, Provision B., of Order No. R8-2002-0011;

6. A draft work plan that describes the proposed implementation of the DAMP for next fiscal year. The work plan shall include clearly defined tasks, responsibilities, and schedules for implementation of the storm water program and each Permittee's actions for the next fiscal year; and

7. Major changes in any previously submitted plans/policies; and

8. An assessment of the Permittees compliance status with the Receiving Water Limitations, Section III of the Order, including any proposed modifications to the DAMP if the Receiving Water Limitations are not fully achieved.

C. The Co-Permittees shall be responsible for the submittal of all required information/materials needed to comply with this order in a timely manner to the Principal Permittee. A duly authorized representative of the Co-Permittee under penalty of perjury shall sign all such submittals.

V. REPORTING SCHEDULE

All reports required by this order shall be submitted to the Executive Officer of the Regional Board in accordance with the following schedule:

REFERENCE	ITEM	COMPLETION TIME AFTER PERMIT ADOPTION/FREQ.	REPORT DUE DATE
I.A.1.e.	Evaluate the established criteria for inspections of the municipal storm sewer systems and establish criteria for regular maintenance and cleaning of storm drain systems.	6 months.	Nov. of the year following adoption.
I.A.2.b.	Permittee Technical Committee meetings to discuss permit implementation and regional and state-wide issues	Held at least 10 times each year	Annually on Nov. 30th
I.B.1.c	Review effectiveness of ordinances in prohibiting discharges to MS4's as listed in Section II (Limitations/Prohibitions).	6 months.	Nov. of the year of adoption.
II.F.	Evaluate Section II.C. discharges to determine if pollutants are present.	18 months.	Nov. of the year following adoption.
IV.A.	Revise existing Implementation Agreement.	6 Months	Nov. of the year following adoption.
IV.B.	Evaluate Storm Water Management structure and Implementation Agreement annually.	Annually on Nov. 30th	Annually on Nov. 30th
V.C.	Enact ordinances or other local regulatory mechanisms that include sanctions to ensure compliance	12 Months.	Nov. of the year following adoption.

REFERENCE	ITEM	COMPLETION TIME AFTER PERMIT ADOPTION/FREQ.	REPORT DUE DATE
V.E.	Provide a report on the effectiveness of their water quality ordinances and their enforcement, in prohibiting illegal discharges to the MS4s	12 Months	Nov. of the year following adoption.
V.F.	Develop restaurant inspections program, which includes runoff, grease blockage, and spill reduction aspects.	12 Months.	Nov. of the year following adoption.
V.G.	Legal Authority & Enforcement Strategy, Certification	18 months.	Nov. of the year following adoption.
VI.D.	Evaluate available BMPs & recommend any improvements needed.	18 Months.	Nov. of the year following adoption.
VI.E.	Litter/Trash Control Ordinance review	18 Months.	Nov. of the year following adoption.
VII. A.	With the Local Sewering Agencies, propose a mechanism to determine and control the impact of infiltration from leaking sanitary sewer systems on storm water quality and Develop unified response to sewage spills.	16 months.	Nov. of the year following adoption.
VII.B.	Develop mechanism to address Septic System Failures	12 Months.	Nov. of the year following adoption.
VII. C.	Review current oversight programs for portable toilets to determine the need for any revision	12 Months.	Nov. of the year following adoption.
VIII. A. 1	Establish mechanism to ensure local permits for proposed construction sites and industrial facilities are conditioned upon proof of obtaining coverage under the applicable State General Permit(s)/Regional Board San Jacinto General Construction Permit	6 months	Nov. of the year following adoption.
VIII. A.8	Review planning procedures and CEQA document preparation processes	12 Months	April 10th of the year following adoption.
VIII. A.9	Incorporate watershed protection principles and policies into the General Plan	24 Months	Nov. of the second year following adoption
VIII.A.10	Review and revise, as necessary, grading/erosion control ordinances to reduce erosion.	12 Months,	Nov. of the year following adoption.
VIII.A.11	Select a new development site to evaluate a selected BMP	12 Months	Nov. of the year following adoption.
VIII.B.1.	Review existing BMPs for New Developments and Water Quality Management Plan to determine need for development of Water Quality Management Plan	12 Months .	Nov. of the year following adoption.
VIII.B.5.	In the absence of an approved WQMP, the structural BMPs for all new development and significant redevelopment shall be sized to comply with one of the numeric sizing criteria given.	February 15, 2004	Nov. 30, 2004

REFERENCE	ITEM	COMPLETION TIME AFTER PERMIT ADOPTION/FREQ.	REPORT DUE DATE
IX.A.1.	Develop and update a construction site database, including site information, priority, and inspection information	12 Months.	Nov. of the year following adoption.
IX.A.2.	Develop and update criteria for inspection of Industrial facilities, including site information, priority, and inspection information	12 Months.	Nov. of the year following adoption.
IX. A.6., IX.B.9., & IX.C.9.	Public agency staff and contract field operations staff adequately trained.	12 Months, and annually thereafter.	Nov. of the year following adoption.
IX.B.1.	Develop and update an industrial facilities database, including facility information, priority, and inspection information	12 Months.	Nov. of the year following adoption.
IX.B.2.	Develop and update criteria for inspection of Industrial facilities, including site information, priority, and inspection information	12 Months.	Nov. of the year following adoption.
IX.B.5	Identify remaining industrial facilities that do not have business permits or other authorization by the Permittees	36 Months	Nov. of the third year following adoption.
IX.C.1.	Develop and update a commercial site database, including facility information, priority, and inspection information	6 Months.	Nov. of the year following adoption.
X.B.	Complete Public Awareness Survey	6 months.	Nov. of the year of adoption.
X. D.	Establish Public Education Committee	12 Months.	Nov. of the year of adoption.
X. E.	Develop a study to measure effect of modified education program	12 Months	Nov. of the fifth year following adoption.
X. F.	BMP Guidance for Restaurants, Automotive Service Centers, and Gasoline Service Stations, developed by Public Education Committee	6 Months	Nov. of the year of adoption.
X.G.	Develop public education materials including reporting hot-line and web site.	6 Months	Nov. 30, 2002
X. H	BMP Guidance for Control of Potential Polluting Activities not otherwise regulated	18 Months.	Nov. of the year following adoption.
X. I.	Determine the best method to provide educational and General Industrial Permit materials to businesses within their jurisdiction	6 months	Nov. of the year following adoption.
XI.B.	Develop BMPs for fire fighting training & equipment testing.	12 Months	Nov. of the year following adoption.
XI.C.	Review Municipal Facilities Strategy & Evaluate Environmental Performance Program applicability to municipal maintenance contracts, contract for field maintenance operations, and leases	Annually on August 1st	Nov. 30th
XI.D.	Review opportunities to configure/reconfigure flood control facilities	6 months.	Nov. of the year following adoption.

REFERENCE	ITEM	COMPLETION TIME AFTER PERMIT ADOPTION/FREQ.	REPORT DUE DATE
XI.E.	Develop Model Public Facility Maintenance Program for activities and drainage facilities.	6 months.	Nov. of the year following adoption.
XI.F.	Implement program to clean out drainage facilities.	24 Months	Nov. of the second year following adoption.
XI.H.	Develop and distribute BMP guidance for public agency and contract field operations and maintenance staff	6 months	Nov. of the year following adoption.
XI.L.	Evaluate street/road sweeping frequency	Annually	Annually on Nov. 30th
XII.B.	Comply with the requirements for municipal construction projects that may result in land disturbance greater than one acre.	12 Months	Nov. of the year following adoption.
XIII.A.	Revise the DAMP	Nov 2003	Nov. 30, 2003
XIII.C.	Evaluate the DAMP for additional revision.	Annually on August 1st	Nov. 30th
XV.B.	Annual Report/Fiscal Analysis	Annually	Nov. 30th
XVI.A.	Report of Waste Discharge	180 days before permit expires	January 19, 2007 ee.
Attachment 3 III.B.	Revise Water Quality Monitoring Program	12 Months	Nov. of the year following adoption.
Attachment 3 III.C.	Proposed Revised Water Quality Monitoring Program for integrated approach.	12 Months	Nov. of the year following adoption.
Attachment 3. IV.B.4	Re-evaluate monitoring program priorities based on previous year's data	Annually, Nov.30th	Nov. 30th

Ordered by_____

Gerard J. Thibeault
Executive Officer
July 19, 2002

APPENDIX 4
GLOSSARY

Beneficial Uses – The uses of water necessary for the survival or well being of man, plants, and wildlife. These uses of water serve to promote the tangible and intangible economic, social, and environmental goals. "Beneficial Uses" that may be protected against include, but are not limited to: domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves. Existing beneficial uses are uses that were attained in the surface or ground water on or after November 28, 1975; and potential beneficial uses are uses that would probably develop in future years through the implementation of various control measures. "Beneficial Uses" are equivalent to "Designated Uses" under federal law. [California Water Code Section 13050(f)].

Best Available Technology (BAT) – BAT is the acronym for best available technology economically achievable. BAT is the technology-based standard established by congress in CWA section 402(p)(3)(A) for industrial dischargers of storm water. Technology-based standards establish the level of pollutant reductions that dischargers must achieve, typically by treatment or by a combination of treatment and best management practices, or BMPs. For example, secondary treatment (or the removal of 85% suspended solids and BOD) is the BAT for suspended solid and BOD removal from a sewage treatment plant. BAT generally emphasizes treatment methods first and pollution prevention and source control BMPs secondarily.

The best economically achievable technology that will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants is determined in accordance with regulations issued by the Environmental Protection Agency Administrator. Factors relating to the assessment of best available technology shall take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, the cost of achieving such effluent reduction, non-water quality environmental impact (including energy requirements), and such other factors as the permitting authority deems appropriate.

Best Conventional Technology (BCT) – BCT is an acronym for Best Conventional Technology. BCT is the treatment techniques, processes and procedure innovations, and operating methods that eliminate or reduce chemical, physical, and biological pollutant constituents.

Best Management Practices – Best Management Practices (BMPs) are defined in 40 CFR 122.2 as schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. In the case of municipal storm water permits, BMPs are typically used in place of numeric effluent limits.

Bioaccumulate – The progressive accumulation of contaminants in the tissues of organisms through any route including respiration, ingestion, or direct contact with contaminated water, sediment, pore water, or dredged material to a higher concentration than in the surrounding environment. Bioaccumulation occurs with exposure and is independent of the tropic level.

Biological Integrity – Defined in Karr J.R. and D.R. Dudley. 1981. Ecological perspective on water quality goals. Environmental Management 5:55-68 as: "A balanced, integrated, adaptive community of organisms having a species composition,

diversity, and functional organization comparable to that of natural habitat of the region." Also referred to as ecosystem health.

Clean Water Act Section 402(p) – [33 USC 1342(p)] is the federal statute requiring municipal and industrial dischargers to obtain NPDES permits for their discharges of storm water.

Clean Water Act Section 303(d) Listed Water Body – is an impaired water body in which water quality does not meet applicable water quality standards and/or is not expected to meet water quality standards, even after the application of technology-based pollution controls required by the CWA. The discharge of urban runoff to these water bodies by the Co-permittees is significant because these discharges can cause or contribute to violations of applicable water quality standards.

Contamination – As defined in the Porter-Cologne Water Quality Control Act, contamination is "an impairment of the quality of waters of the State by waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease." 'Contamination' includes any equivalent effect resulting from the disposal of waste whether or not waters of the U.S. are affected.

Debris – Debris is defined as the remains of anything destroyed or broken, or accumulated loose fragments of rock.

Effluent Limitations – Limitations on the volume of each waste discharge, and the quantity and concentrations of pollutants in the discharge. The limitations are designed to ensure that the discharge does not cause water quality objectives to be exceeded in the receiving water and does not adversely affect beneficial uses.

Effluent limitations are limitations of the quantity and concentrations of pollutants in a discharge. The limitations are designed to ensure that the discharge does not cause water quality objectives to be exceeded in the receiving water and does not adversely affect beneficial uses. In other words, an effluent limit is the maximum concentration of a pollutant that a discharge can contain. To meet effluent limitations, the effluent typically must undergo one or more forms of treatment to remove pollutants in order to lower the pollutant concentration below the limit. Effluent limits are typically numeric (e.g., 10 mg/l).

Erosion – When land is diminished or wane away due to the effects of wind, water, or glacial ice. Often the eroded debris (silt or sediment) becomes a pollutant via storm water runoff. Erosion occurs naturally but can be intensified by land clearing activities such as farming, development, road building, and timber harvesting.

Grading – The cutting and/or filling of the land surface to a desired slope or elevation.

Hazardous Material – Any substance that poses a threat to human health or the environment due to its toxicity, corrosiveness, ignitability, explosive nature or chemical reactivity. These also include materials named by the U.S. EPA to be reported if a designated quantity of the material is spilled into the waters of the United States or emitted into the environment.

Illicit Discharge – Any discharge to a municipal separate storm sewer that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term illicit discharge includes all non-storm water discharges except discharges pursuant to an NPDES permit, discharges that are identified in Section III, Discharge Limitations/Prohibitions, of this Order, and discharges authorized by the Regional Board Executive Officer. .

MEP – MEP is the acronym for Maximum Extent Practicable. MEP is the technology-based standard established by Congress in CWA section 402(p)(3)(B)(iii) that municipal dischargers of storm water (MS4s) must meet. Technology-based standards establish

the level of pollutant reductions that dischargers must achieve, typically by treatment or by a combination of treatment and best management practices (BMPs). MEP generally emphasizes pollution prevention and source control BMPs primarily (as the first line of defense) in combination with treatment methods serving as a backup (additional line of defense). MEP considers economics and is generally, but not necessarily, less stringent than BAT. A definition for MEP is not provided either in the statute or in the regulations. Instead the definition of MEP is dynamic and will be defined by the following process over time: municipalities propose their definition of MEP by way of their Water Quality Management Plan. Their total collective and individual activities conducted pursuant to the Water Quality Management Plan becomes their proposal for MEP as it applies both to their overall effort, as well as to specific activities (e.g., MEP for street sweeping, or MEP for municipal separate storm sewer system maintenance). In the absence of a proposal acceptable to the SARWQCB, the SARWQCB defines MEP.
In a memo dated February 11, 1993, entitled "Definition of Maximum Extent Practicable," Elizabeth Jennings, Senior Staff Counsel, SWRCB addressed the achievement of the MEP standard as follows:

"*To achieve the MEP standard, municipalities must employ whatever Best Management Practices (BMPs) are technically feasible (i.e., are likely to be effective) and are not cost prohibitive. The major emphasis is on technical feasibility. Reducing pollutants to the MEP means choosing effective BMPs, and rejecting applicable BMPs only where other effective BMPs will serve the same purpose, or the BMPs would not be technically feasible, or the cost would be prohibitive. In selecting BMPs to achieve the MEP standard, the following factors may be useful to consider:*

a. *Effectiveness: Will the BMPs address a pollutant (or pollutant source) of concern?*
b. *Regulatory Compliance: Is the BMP in compliance with storm water regulations as well as other environmental regulations?*
c. *Public Acceptance: Does the BMP have public support?*
d. *Cost: Will the cost of implementing the BMP have a reasonable relationship to the pollution control benefits to be achieved?*
e. *Technical Feasibility: Is the BMP technically feasible considering soils, geography, water resources, etc?*

The final determination regarding whether a municipality has reduced pollutants to the maximum extent practicable can only be made by the Regional or State Water Boards, and not by the municipal discharger. If a municipality reviews a lengthy menu of BMPs and chooses to select only a few of the least expensive, it is likely that MEP has not been met. On the other hand, if a municipal discharger employs all applicable BMPs except those where it can show that they are not technically feasible in the locality, or whose cost would exceed any benefit derived, it would have met the standard. Where a choice may be made between two BMPs that should provide generally comparable effectiveness, the discharger may choose the least expensive alternative and exclude the more expensive BMP. However, it would not be acceptable either to reject all BMPs that would address a pollutant source, or to pick a BMP base solely on cost, which would be clearly less effective. In selecting BMPs the municipality must make a serious attempt to comply and practical solutions may not be lightly rejected. In any case, the burden would be on the municipal discharger to show compliance with its permit. After selecting a menu of BMPs, it is the responsibility of the discharger to ensure that all BMPs are implemented."

Municipal Storm Water Conveyance System – (See Municipal Separate Storm Sewer System or MS4).

Municipal Separate Storm Sewer System (MS4) – MS4 is an acronym for Municipal Separate Storm Sewer System. A Municipal Separate Storm Sewer System is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, natural drainage features or channels, modified natural channels, man-made channels, or storm drains): (i) Owned or operated by a State, city town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) Designated or used for collecting of conveying storm water; (iii) Which is not a combined sewer; (iv) Which is not part of the Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

Historic and current development make use of natural drainage patterns and features as conveyances for urban runoff. Urban streams used in this manner are part of the municipalities MS4 regardless of whether they are natural, man-made, or partially modified features. In these cases, the urban stream is both an MS4 and a receiving water.

National Pollution Discharge Elimination System (NPDES) – Permits issued under Section 402(p) of the Federal Clean Water Act for regulating discharge of pollutants to waters of the United States.

Non-Point Source Pollution (NPS) – Non point source refers to diffuse, widespread sources of pollution. These sources may be large or small, but are generally numerous throughout a watershed. Non Point Sources include but are not limited to urban, agricultural, or industrial areas, roads, highways, construction sites, communities served by septic systems, recreational boating activities, timber harvesting, mining, livestock grazing, as well as physical changes to stream channels, and habitat degradation. NPS pollution can occur year round any time rainfall, snowmelt, irrigation, or any other source of water runs over land or through the ground, picks up pollutants from these numerous, diffuse sources and deposits them into rivers, lakes, and coastal waters or introduces them into ground water.

Non-Storm Water – Non-storm water consists of all discharges to and from a storm water conveyance system that do not originate from precipitation events (i.e., all discharges from a conveyance system other than storm water). Non-storm water includes illicit discharges, non-prohibited discharges, and NPDES permitted discharges. An illicit discharge is defined at 40 CFR 122.26(b)(2) as any discharge to a municipal storm water conveyance system that is not composed entirely of storm water except discharges pursuant to a separate NPDES permit and discharges resulting from emergency fire fighting activities.

Nuisance – As defined in the Porter-Cologne Water Quality Control Act a nuisance is "anything which meets all of the following requirements: 1) Is injurious to health, or is indecent, or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property. 2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal. 3) Occurs during, or as a result of, the treatment or disposal of wastes."

Numeric Effluent Limitations – The typical method by which effluent limits are prescribed for pollutants in waste discharge requirements implementing the federal NPDES regulations. When numeric effluent limits are met at the "end-of-pipe," the effluent discharge generally will not cause water quality standards to be exceeded in the receiving waters (i.e., water quality standards will also be met).

Person – A person is defined as an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof. [40 CFR 122.2].

Point Source – Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operations, landfill leachate collection systems, vessel, or other floating craft from which pollutants are or may be discharged.

Pollution – As defined in the Porter-Cologne Water Quality Control Act, pollution is "the alteration of the quality of the waters of the U.S. by waste, to a degree that unreasonably affects either of the following: A) The waters for beneficial uses; or 2) Facilities that serve these beneficial uses." Pollution may include contamination.

Pollutant – A pollutant is broadly defined as any agent that may cause or contribute to the degradation of water quality such that a condition of pollution or contamination is created or aggravated.

Pollution Prevention – Pollution prevention is defined as practices and processes that reduce or eliminate the generation of pollutants, in contrast to source control, treatment, or disposal.

Post-Construction BMPs – A subset of BMPs including structural and non-structural controls which detain, retain, filter, or educate to prevent the release of pollutants to surface waters during the final functional life of development.

Receiving Water Limitations – Waste discharge requirements issued by the SARWQCB typically include both: (1) "Effluent Limitations" (or "Discharge Limitations") that specify the technology-based or water-quality-based effluent limitations; and (2) "Receiving Water Limitations" that specify the water quality objectives in the Basin Plan as well as any other limitations necessary to attain those objectives. In summary, the "Receiving Water Limitations" provision is the provision used to implement the requirement of CWA section 301(b)(1)(C) that NPDES permits must include any more stringent limitations necessary to meet water quality standards.

Sediment – Soil, sand, and minerals washed from land into water. Sediment resulting from anthropogenic sources (i.e. human induced land disturbance activities) is considered a pollutant. This Order regulates only the discharges of sediment from anthropogenic sources and does not regulate naturally occurring sources of sediment. Sediment can destroy fish-nesting areas, clog animal habitats, and cloud waters so that sunlight does not reach aquatic plants.

Storm Water – "Storm water" is as defined urban runoff and snowmelt runoff consisting only of those discharges which originate from precipitation events. Storm water is that portion of precipitation that flows across a surface to the storm drain system or receiving waters. Examples of this phenomenon include: the water that flows off a building's roof when it rains (runoff from an impervious surface); the water that flows into streams when snow on the ground begins to melt (runoff from a semi-pervious surface); and the water that flows from a vegetated surface when rainfall is in excess of the rate at which it can infiltrate into the underlying soil (runoff from a pervious surface). When all factors are equal, runoff increases as the perviousness of a surface decreases. During precipitation events in urban areas, rain water picks up and transports pollutants through storm water conveyance systems, and ultimately to waters of the United States.

Toxicity – Adverse responses of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies.

Total Maximum Daily Load (TMDL) – The TMDL is the maximum amount of a pollutant that can be discharged into a water body from all sources (point and non-point) and still maintain water quality standards. Under Clean Water Act Section 303(d), TMDLs must be developed for all water bodies that do not meet water quality standards after application of technology-based controls.

Urban Runoff – Urban runoff is defined as all flows in a storm water conveyance system and consists of the following components: (1) storm water (wet weather flows) and (2) non-storm water illicit discharges (dry weather flows).

Waste – As defined in California Water Code Section 13050(d), "waste includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal."

Article 2 of CCR Title 23, Chapter 15 (Chapter 15) contains a waste classification system which applies to solid and semi-solid waste which cannot be discharged directly or indirectly to water of the state and which therefore must be discharged to land for treatment, storage, or disposal in accordance with Chapter 15. There are four classifications of waste (listed in order of highest to lowest threat to water quality): hazardous waste, designated waste, nonhazardous solid waste, and inert waste.

Water Quality Objective – Numerical or narrative limits on constituents or characteristics of water designated to protect designated beneficial uses of the water. [California Water Code Section 13050 (h)] California's water quality objectives are established by the State/Regional Water Boards in the Water Quality Control Plans.

As stated in the Porter-Cologne Requirements for discharge (CWC 13263): "(Waste discharge) requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241."

Numeric or narrative limits for pollutants or characteristics of water designed to protect the beneficial uses of the water. In other words, a water quality objective is the maximum concentration of a pollutant that can exist in a receiving water and still generally ensure that the beneficial uses of the receiving water remain protected (i.e., not impaired). Since water quality objectives are designed specifically to protect the beneficial uses, when the objectives are violated the beneficial uses are, by definition, no longer protected and become impaired. This is a fundamental concept under the Porter Cologne Act. Equally fundamental is Porter Cologne's definition of pollution. A condition of pollution exists when the water quality needed to support designated beneficial uses has become unreasonably affected or impaired; in other words, when the water quality objectives have been violated. These underlying definitions (regarding beneficial use protection) are the reason why all waste discharge requirements implementing the federal NPDES regulations require compliance with water quality objectives. (Water quality objectives are also called water quality criteria in the Clean Water Act.)

Water Quality Standards – are defined as the beneficial uses (e.g., swimming, fishing, municipal drinking water supply, etc.,) of water and the water quality objectives necessary to protect those uses.

Waters of the United States – Waters of the United States can be broadly defined as navigable surface waters and all tributary surface waters to navigable surface waters. Groundwater is not considered to be a Waters of the United States.
As defined in 40 CFR 122.2, the Waters of the U.S. are defined as: **(a) All waters, which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;** (b) All interstate waters, including interstate "wetlands;" (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands," sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation or destruction of which would affect or could affect interstate or foreign commerce including any such waters: (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes; (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (3) Which are used or could be used for industrial purposes by industries in interstate commerce; (d) All impoundments of waters otherwise defined as waters of the United States under this definition**: (e) Tributaries of waters identified in paragraphs (a) through (d) of this definition;** (f) The territorial seas; and (g) "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA.

Watershed – That geographical area which drains to a specified point on a water course, usually a confluence of streams or rivers (also known as drainage area, catchment, or river basin).